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=> file reg
FILE 'REGISTRY' ENTERED AT 11:09:02 ON 18 APR 2002
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=> d his nofile


     FILE 'REGISTRY' ENTERED AT 09:58:49 ON 18 APR 2002
                  E POLYACRYLIC ACID, SODIUM SALT/CN
                  E POLYACRYLIC ACID/CN
L1                1 SEA "POLYACRYLIC ACID BARIUM LITHIUM SALT"/CN
                  D IDE
L2            47749 SEA 79-10-7/CRN
L3             7630 SEA L2 AND M/ELS
L4              183 S L3 AND 2/NC
                  E CARBOXYMETHYLCELLULOSE/CN
                  E CARBOXYMETHYL CELLULOSE/CN
                  E CARBOXYMETHYL CELLULOSE SODIUM/CN
L5                1 SEA "CARBOXYMETHYL CELLULOSE SODIUM"/CN OR "CARBOXYMETHYL
                    CELLULOSE SODIUM SALT"/CN
                  E CARBOXYMETHYL CELLULOSE/CN
L6                2 SEA "CARBOXYMETHYL CELLULOSE"/CN
L7                2 SEA L6 OR L5
                  E CARBOXYMETHYL CELLULOSE/CN
                  E CARBOXYMETHYL STARCH/CN
L8                2 SEA "CARBOXYMETHYL STARCH"/CN OR "CARBOXYMETHYL STARCH
                    SODIUM SALT"/CN
                  E ALGINIC ACID/CN
L9                1 SEA "ALGINIC ACID"/CN
                  E XANTHANE GUM/CN
                  E XANTHANE/CN
                  E POLYMETHACRYLIC ACID/CN
                  E 2-PROPENOIC ACID, 2-METHYL-, POLYMER/CN
                  E 2-PROPENOIC ACID, 2-METHYL-/CN
L10               1 SEA "2-PROPENOIC ACID, 2-METHYL-"/CN
                  D RN
L11           35631 SEA 79-41-4/CRN
L12             110 SEA L4 AND PMS/CI
L13            4308 SEA L11 AND M/ELS
L14             143 SEA L13 AND 2/NC
L15              69 SEA L14 AND PMS/CI

     FILE 'HCA' ENTERED AT 10:27:29 ON 18 APR 2002
L16           31272 SEA L12 OR L7 OR L8 OR L9 OR L15
L17           45243 SEA (POLYACRYLAT? OR POLYMETHACRYLAT? OR POLY(2A)(ACRYLAT
                    ? OR METHACRYLAT?))(3A)(SODIUM# OR NA OR POTASSIUM# OR K
                    OR SALT#) OR CARBOXYMETHYL#(2A)(CELLULOSE# OR STARCH##)
                    OR CARBOXYMETHYLCELLULOSE# OR CARBOXYMETHYLSTARCH## OR
                    ALGINIC#(2A)ACID# OR ALGINATE# OR XANTHAN##
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     FILE 'REGISTRY' ENTERED AT 10:31:19 ON 18 APR 2002
                E POLY(DIMETHYLMETHYLENEPIPERIDINIUM CHLORIDE)/CN
                E DIMETHYLMETHYLENEPIPERIDINIUM CHLORIDE, POLYMER/CN

     FILE 'HCA' ENTERED AT 10:32:35 ON 18 APR 2002
L18             4 SEA (DIMETHYLMETHYLENEPIPERIDINIUM#(2A)CHLORIDE#)(3A)(POL
                  Y OR POLYM?)
                  D L18 1-4 KWIC

     FILE 'REGISTRY' ENTERED AT 10:34:21 ON 18 APR 2002
L19             1 SEA 9002-89-5
                  D SCAN
                  E DIMETHYLMETHYLENEPIPERIDINIUM CHLORIDE/CN
                  E DIMETHYLMETHYLENE PIPERIDINIUM CHLORIDE/CN

     FILE 'REGISTRY' ENTERED AT 10:35:13 ON 18 APR 2002

     FILE 'HCA' ENTERED AT 10:35:15 ON 18 APR 2002
                SEL L18 1-4 RN

     FILE 'REGISTRY' ENTERED AT 10:35:26 ON 18 APR 2002
L20            26 SEA (9002-89-5/BI OR 102-71-6/BI OR 112-85-6/BI OR

L21             9 SEA L20 AND PMS/CI
                  E C9H16N
L22           132 SEA C9H16N/BI
L23             1 SEA L21 AND L22
                  D SCAN

     FILE 'HCA' ENTERED AT 10:36:46 ON 18 APR 2002
L24            28 SEA L23
L25          3166 SEA (CATIONIC? OR CATIONIZ? OR CATIONIS? OR QUAT?)(2A)(CE
                  LLULOSE# OR STARCH## OR CYAMOPOS? OR DEXTRIN#) OR
                  POLYDIMETHYLMETHYLENEPIPERIDINIUM? OR DIMETHYLMETHYLENEPI
                  PERDINIUM? OR (POLYDIMETHYLMETHYLENE? OR DIMETHYLMETHYLEN
                  E?)(2A)PIPERIDINIUM?
L26          6597 SEA DIAPER? OR INCONTINEN? OR SANITARY(2A)(NAPKIN? OR
                  GOODS) OR WIPES OR WIPER? OR (CLEAN? OR TACK)(2A)CLOTH#
                  OR TACKCLOTH?

     FILE 'LCA' ENTERED AT 10:42:11 ON 18 APR 2002
L27          2714 SEA (FABRIC? OR TEXTILE? OR CLOTH? OR GARMENT? OR YARN?
                  OR NAPER? OR DRAPER? OR (DRY OR RAG)(W)GOOD? OR WEAV? OR
                  WOVE? OR WOOF? OR WEFT? OR WEB? OR SPIN? OR SPUN?)/BI,AB
L28          2720 SEA FABRIC? OR TEXTILE? OR CLOTH? OR GARMENT? OR YARN?
                  OR NAPER? OR DRAPER? OR (DRY OR RAG)(W)GOOD? OR WEAV? OR
                  WOVE? OR WOOF? OR WEFT? OR WEB? OR SPIN? OR SPUN? OR
                  APPAREL? OR SLUB? OR ROVE# OR ROVING#
L29          2424 SEA (FIBER? OR FIBR? OR FILAMENT? OR THREAD? OR STRAND?
                  OR RIBBON? OR FILIFORM?)/BI,AB
L30          1921 SEA FIBER? OR FIBRE? OR FILAMENT? OR THREAD? OR STRAND?
                  OR RIBBON? OR FILIFORM?
```

FILE 'HCA' ENTERED AT 10:45:34 ON 18 APR 2002

L31 22582 SEA (NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?))(3A)(L28 OR L30)
L32 98015 SEA CATIONIC? OR CATIONIZ? OR CATIONIS?
L33 90940 SEA ANIONIC? OR ANIONIZ? OR ANIONIS?
L34 18048 SEA AMPHOTER?
L35 1278 SEA L26 AND L31
L36 11 SEA L35 AND L32 AND L33
L37 5 SEA L35 AND L34
L38 9 SEA L35 AND (L16 OR L17) AND (L24 OR L25)
L39 14 SEA L35 AND (L16 OR L17 OR L33) AND (L24 OR L25 OR L32)
L40 24115 SEA NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?)
L41 1339 SEA L26 AND L40
L42 14 SEA L41 AND (L16 OR L17 OR L33) AND (L24 OR L25 OR L32)
L43 19 SEA L36 OR L37 OR L38 OR L39 OR L42

FILE 'WPIDS, JAPIO, PAPERCHEM2' ENTERED AT 10:54:37 ON 18 APR 2002

L44 31401 SEA DIAPER? OR INCONTINEN? OR SANITARY(2A)(NAPKIN? OR GOODS) OR WIPES OR WIPER? OR (CLEAN? OR TACK)(2A)CLOTH# OR TACKCLOTH?
L45 9194 SEA DIAPER? OR INCONTINEN? OR SANITARY(2A)(NAPKIN? OR GOODS) OR WIPES OR WIPER? OR (CLEAN? OR TACK)(2A)CLOTH# OR TACKCLOTH?
L46 5395 SEA DIAPER? OR INCONTINEN? OR SANITARY(2A)(NAPKIN? OR GOODS) OR WIPES OR WIPER? OR (CLEAN? OR TACK)(2A)CLOTH# OR TACKCLOTH?

TOTAL FOR ALL FILES

L47 45990 SEA L26
L48 37317 SEA NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?)
L49 72277 SEA NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?)
L50 10100 SEA NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?)

TOTAL FOR ALL FILES

L51 119694 SEA NONWOVEN? OR NONWEAV? OR NON(A)(WOVEN? OR WEAV?)
L52 20601 SEA (POLYACRYLAT? OR POLYMETHACRYLAT? OR POLY(2A)(ACRYLAT? OR METHACRYLAT?))(3A)(SODIUM# OR NA OR POTASSIUM# OR K OR SALT#) OR CARBOXYMETHYL#(2A)(CELLULOSE# OR STARCH##) OR CARBOXYMETHYLCELLULOSE# OR CARBOXYMETHYLSTARCH## OR ALGINIC#(2A)ACID# OR ALGINATE# OR XANTHAN##
L53 5918 SEA (POLYACRYLAT? OR POLYMETHACRYLAT? OR POLY(2A)(ACRYLAT? OR METHACRYLAT?))(3A)(SODIUM# OR NA OR POTASSIUM# OR K OR SALT#) OR CARBOXYMETHYL#(2A)(CELLULOSE# OR STARCH##) OR CARBOXYMETHYLCELLULOSE# OR CARBOXYMETHYLSTARCH## OR ALGINIC#(2A)ACID# OR ALGINATE# OR XANTHAN##
L54 3392 SEA (POLYACRYLAT? OR POLYMETHACRYLAT? OR POLY(2A)(ACRYLAT? OR METHACRYLAT?))(3A)(SODIUM# OR NA OR POTASSIUM# OR K OR SALT#) OR CARBOXYMETHYL#(2A)(CELLULOSE# OR STARCH##) OR CARBOXYMETHYLCELLULOSE# OR CARBOXYMETHYLSTARCH## OR ALGINIC#(2A)ACID# OR ALGINATE# OR XANTHAN##

TOTAL FOR ALL FILES

L55 29911 SEA L17
L56 34629 SEA ANIONIC? OR ANIONIZ? OR ANIONIS?

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L57        10255 SEA ANIONIC? OR ANIONIZ? OR ANIONIS?
L58         2690 SEA ANIONIC? OR ANIONIZ? OR ANIONIS?
     TOTAL FOR ALL FILES
L59        47574 SEA ANIONIC? OR ANIONIZ? OR ANIONIS?
L60         1531 SEA (CATIONIC? OR CATIONIZ? OR CATIONIS? OR QUAT?)(2A)(CE
                 LLULOSE# OR STARCH## OR CYAMOPOS? OR DEXTRIN#) OR
                 POLYDIMETHYLMETHYLENEPIPERIDINIUM? OR DIMETHYLMETHYLENEPI
                 PERDINIUM? OR (POLYDIMETHYLMETHYLENE? OR DIMETHYLMETHYLEN
                 E?)(2A)PIPERIDINIUM?
L61          425 SEA (CATIONIC? OR CATIONIZ? OR CATIONIS? OR QUAT?)(2A)(CE
                 LLULOSE# OR STARCH## OR CYAMOPOS? OR DEXTRIN#) OR
                 POLYDIMETHYLMETHYLENEPIPERIDINIUM? OR DIMETHYLMETHYLENEPI
                 PERDINIUM? OR (POLYDIMETHYLMETHYLENE? OR DIMETHYLMETHYLEN
                 E?)(2A)PIPERIDINIUM?
L62         1415 SEA (CATIONIC? OR CATIONIZ? OR CATIONIS? OR QUAT?)(2A)(CE
                 LLULOSE# OR STARCH## OR CYAMOPOS? OR DEXTRIN#) OR
                 POLYDIMETHYLMETHYLENEPIPERIDINIUM? OR DIMETHYLMETHYLENEPI
                 PERDINIUM? OR (POLYDIMETHYLMETHYLENE? OR DIMETHYLMETHYLEN
                 E?)(2A)PIPERIDINIUM?
     TOTAL FOR ALL FILES
L63         3371 SEA L25
L64        32222 SEA CATIONIC? OR CATIONIZ? OR CATIONIS?
L65        11050 SEA CATIONIC? OR CATIONIZ? OR CATIONIS?
L66         5291 SEA CATIONIC? OR CATIONIZ? OR CATIONIS?
     TOTAL FOR ALL FILES
L67        48563 SEA CATIONIC? OR CATIONIZ? OR CATIONIS?
L68         7697 SEA AMPHOTER?
L69         2574 SEA AMPHOTER?
L70          436 SEA AMPHOTER?
     TOTAL FOR ALL FILES
L71        10707 SEA AMPHOTER?
L72           13 SEA L44 AND L48 AND (L52 OR L56) AND (L60 OR L64)
L73            4 SEA L45 AND L49 AND (L53 OR L57) AND (L61 OR L65)
L74            3 SEA L46 AND L50 AND (L54 OR L58) AND (L62 OR L66)
     TOTAL FOR ALL FILES
L75           20 SEA L47 AND L51 AND (L55 OR L59) AND (L63 OR L67)
L76            7 SEA L44 AND L48 AND L68
L77            3 SEA L45 AND L49 AND L69
L78            0 SEA L46 AND L50 AND L70
     TOTAL FOR ALL FILES
L79           10 SEA L47 AND L51 AND L71
L80           16 SEA L72 OR L76
L81            6 SEA L73 OR L77
L82            3 SEA L74 OR L78
     TOTAL FOR ALL FILES
L83           25 SEA L75 OR L79

     FILE 'REGISTRY' ENTERED AT 11:09:02 ON 18 APR 2002

=> file hca
FILE 'HCA' ENTERED AT 11:09:16 ON 18 APR 2002
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=> d l43 1-19 cbib abs hitstr hitind

L43 ANSWER 1 OF 19 HCA COPYRIGHT 2002 ACS
135:141975 Disinfectant solutions for wet tissues and packaged wet tissues impregnated with the solutions. Odabayashi, Toru; Kaku, Takeshi (Pigeon Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001206818 A2 20010731, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-330892 20001030. PRIORITY: JP 1999-323155 19991112.

AB The solns. for manuf. of wet tissues comprising water-disintegratable **nonwoven fabrics** comprise an aq. medium and Na benzoate, Na lactate, and/or phenoxyethanol dissolving in the medium. The solns. may addnl. contain plant exts., e.g. grape leaf ext., catechu ext., aloe ext., ginkgo ext., etc. Packaged wet tissues, useful for house cleaning, nursing, and cleansing skin esp. after excretion, are manufd. by packing water-disintegratable **nonwoven fabrics** impregnated with the solns. with a water-impermeable packaging bag. A compn. contg. viscose, **Na polyacrylate**, and **cationic cellulose** was spun and the fibers were interlaced using high-pressure water jet to give a **nonwoven fabric**. The **nonwoven fabric** was impregnated with a soln. contg. Na benzoate 0.6, 50% Na lactate soln. 0.2, phenoxyethanol 0.7, citric acid monohydrate 0.39, Na citrate 0.2, 1,3-butylene glycol 5, and H2O 92.91% to give wet tissue. The wet tissue was squeezed and the sepd. soln. had antifungal effect against Aspergillus niger.

IT **9004-32-4**, **Carboxymethyl cellulose**
**9005-32-7**, **Alginic acid**
**9057-06-1**, **Carboxymethyl starch**
(blend with regenerated **cellulose** and **cationic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

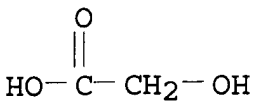
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1

CMF C2 H4 O3



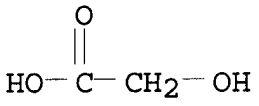
RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9057-06-1 HCA
CN Starch, carboxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9005-25-8
CMF Unspecified
CCI MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



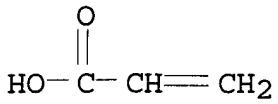
IT **9003-04-7**, Poly(acrylic acid) sodium salt
(blend with viscose and **cationic cellulose**,
fibers; disinfectant wet tissues comprising water-disintegratable
**nonwoven fabric** impregnated with soln. contg.
Na benzoate, Na lactate, and phenoxyethanol)
RN 9003-04-7 HCA
CN 2-Propenoic acid, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 2

CRN 79-10-7
CMF C3 H4 O2



IC ICM A61K007-00
ICS A61K007-00; A01N025-02; A01N031-14; A01N037-10; A01N065-00; A61L002-18; A47K007-00

CC 62-4 (Essential Oils and Cosmetics)

ST disinfectant wet tissue water disintegratable **nonwoven fabric**; benzoate sodium disinfectant cleansing wet tissue; rayon blend **nonwoven fabric** disinfectant medical wipe; lactate sodium disinfectant cleansing wet tissue; **cationic cellulose** blend **nonwoven fabric** disinfectant medical wipe; phenoxyethanol disinfectant cleansing wet tissue

IT Rayon, biological studies
(blend with **cationic** polymers and **anionic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT Antimicrobial agents
Disinfectants
Fungicides
**Nonwoven fabrics**
(disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT Rayon, biological studies
(polynosic, blend with **cationic** polymers and **anionic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT Acetate fibers, biological studies
(sapond., blend with **cationic** polymers and **anionic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT Medical goods
(**wipes**; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT 9000-30-0D, Guar gum, **cationic** derivs. 9004-34-6D, **Cellulose**, **cationic** derivs., biological studies
9004-53-9D, **Dextrin**, **cationic** derivs.
9005-25-8D, **Starch**, **cationic** derivs., biological studies 111367-41-0

(blend with regenerated cellulose and **anionic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT 9003-01-4D, Poly(acrylic acid), salts **9004-32-4**, **Carboxymethyl cellulose 9005-32-7**, **Alginic acid 9057-06-1**, **Carboxymethyl starch** 11138-66-2, **xanthan** gum 25087-26-7D, Poly(methacrylic acid), salts
(blend with regenerated **cellulose** and **cationic** polymers, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT **9003-04-7**, Poly(acrylic acid) sodium salt
(blend with viscose and **cationic cellulose**, fibers; disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

IT 72-17-3, Sodium lactate 122-99-6, Phenoxyethanol 532-32-1, Sodium benzoate
(disinfectant wet tissues comprising water-disintegratable **nonwoven fabric** impregnated with soln. contg. Na benzoate, Na lactate, and phenoxyethanol)

L43 ANSWER 2 OF 19 HCA COPYRIGHT 2002 ACS

135:66299 Water-disintegrable body fluid absorbents. Tsutsui, Katsushi; Tsukimura, Hitoshi (Pigeon Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001178776 A2 20010703, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-364879 19991222.

AB The absorbent such as a disposable **diaper** comprises integrally-molded absorbing unit and water-impermeable back sheet, in which the absorbing unit is water-disintegrable and adhered to the back sheet so that the unit can be peeled from the back sheet after the use and disposed into toilet. The absorbing unit may be covered with a water-permeable top sheet comprising water-disintegrable **nonwoven fabric**.

IT **25549-84-2**, **Poly(sodium acrylate)**
(water-disintegrable **nonwoven fabric** contg., top sheet; body fluid absorbents having water-disintegrable absorbing unit and liq.-barrier back sheet)

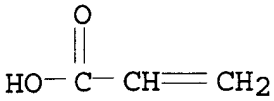
RN 25549-84-2 HCA

CN 2-Propenoic acid, sodium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na



Na

IC ICM A61F013-551
ICS A61F013-49; A61F013-15; A61F013-53; A61F005-44; B32B005-02
CC 63-7 (Pharmaceuticals)
IT Antimicrobial agents
Deodorants (personal)
Disposable **diapers**
(body fluid absorbents having water-disintegrable absorbing unit and liq.-barrier back sheet)
IT Rayon, biological studies
(water-disintegrable **nonwoven fabric** contg., top sheet; body fluid absorbents having water-disintegrable absorbing unit and liq.-barrier back sheet)
IT **Nonwoven fabrics**
(water-disintegrable, top sheet; body fluid absorbents having water-disintegrable absorbing unit and liq.-barrier back sheet)
IT 9004-34-6D, **Cellulose**, **cationic**, biological studies **25549-84-2**, **Poly(sodium acrylate)**
(water-disintegrable **nonwoven fabric** contg., top sheet; body fluid absorbents having water-disintegrable absorbing unit and liq.-barrier back sheet)

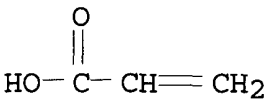
L43 ANSWER 3 OF 19 HCA COPYRIGHT 2002 ACS
135:6830 Fibers for absorbents showing disintegrating property in large amount of water. Omura, Isao; Inoue, Osamu; Koseki, Tomoki (Pigeon Corp., Japan; Toho Rayon Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2001146631 A2 20010529, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-323254 19991112.
AB The fibers, useful for **sanitary napkins**, **diapers**, etc., show crimp elasticity (water content 200%) 20-75% (based on 100% crimp elasticity under dry conditions). Thus, a fiber prepd. from **cationic cellulose**, poly(acrylic acid) Na salt, and rayon showed relative wet crimp elasticity 72.0% and relative tensile strength (water content 200%) 44%.
IT **9003-04-7**, Poly(acrylic acid) sodium salt
(fiber; fibers for absorbents showing disintegrating property in large amt. of water)
RN 9003-04-7 HCA
CN 2-Propenoic acid, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 2

CRN 79-10-7
CMF C3 H4 O2



IC ICM D01F006-00
ICS D01F002-00; D04H001-06
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 63
ST acrylic acid polymer sodium salt rayon fiber; **cationic cellulose nonwoven fabric** disintegrating absorbent medical
IT Fibers
(cellulosic, **cationized**; fibers for absorbents showing disintegrating property in large amt. of water)
IT Absorbents
**Diapers**
Medical goods
**Nonwoven fabrics**
(**fibers** for absorbents showing disintegrating property in large amt. of water)
IT **9003-04-7**, Poly(acrylic acid) sodium salt
(fiber; fibers for absorbents showing disintegrating property in large amt. of water)

L43 ANSWER 4 OF 19 HCA COPYRIGHT 2002 ACS
134:357621 Body fluid absorbents containing water-disintegratable **nonwoven fabrics** as surface layers. Omura, Isao; Inoue, Osamu; Kozeki, Tomoki (Pigeon Corp., Japan; Toho Rayon Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2001137283 A2 20010522, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-323310 19991112.
AB The absorbents contain water-absorbing layers, waterproofing back layers, and surface layers comprising **nonwoven fabrics** made of water-disintegratable fibers showing crimp elasticity 20-75% under a wet condition (200% H2O content) compared with that under a dry condition. Disposable **diaper** was manufd. from **nonwoven fabric** comprising rayon **fiber** contg. 30 wt.% 1:1 mixt. of **cationic cellulose** and **Na polyacrylate**, pulp, acrylic water absorbent, and plastic-laminated waterproof paper.
IT **9003-04-7**, **Sodium polyacrylate**

(in rayon **nonwoven fabric**; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)

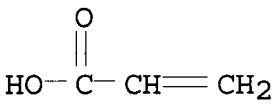
RN 9003-04-7 HCA
CN 2-Propenoic acid, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 2

CRN 79-10-7
CMF C3 H4 O2



IC ICM A61F013-511
ICS A61F013-49; A61F013-54; A61F013-53; A61F013-46; A61F005-44; A61F013-15; A61F013-551; B32B005-02; D04H001-42
CC 63-7 (Pharmaceuticals)
ST absorbent water disintegratable **nonwoven fabric**; disposable **diaper nonwoven fabric** rayon polyacrylate; **cationic cellulose** rayon **nonwoven fabric** absorbent
IT Medical goods
(absorbents; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Acrylic polymers, biological studies
(absorbents; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Disposable **diapers**
**Nonwoven fabrics**
(body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Rayon, biological studies
(**fabrics, nonwoven**, contg. **cationic cellulose** and **Na polyacrylate**; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Paper
(laminates, waterproofing; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Absorbents
(medical; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)

IT Laminated materials
(paper, waterproofing; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT Medical **goods**
(**sanitary napkins**; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)
IT **9003-04-7**, **Sodium polyacrylate**
9004-34-6D, **Cellulose**, **cationic**, biological studies
(in rayon **nonwoven fabric**; body fluid absorbents contg. water-disintegratable **nonwoven fabrics** as surface layers)

L43 ANSWER 5 OF 19 HCA COPYRIGHT 2002 ACS
134:102121 Malodor controlling of textile. Third report: Malodor controlling of woolen and polyester textiles. Kobayashi, Nobuo; Iida, Kikuo; Hayashi, Yoshiyuki (Fablic Process Div., Espo Ltd., Japan). Senshoku Kogyo, 48(12), 595-604 (Japanese) 2000. CODEN: SEKOBF. ISSN: 0370-9574. Publisher: Shikisensha.
AB A review with 5 refs. The present authors have already contributed in this journal (i.e. Dyeing Industry, No, 2000.6 and 2000.7) as titled proposing the following three points to the readers, 1. to use the term, malodor-controlling (MC) and deodorizing (DR) properly, based on the difference in the requirement of each treatment (e.g. garment and **diaper**) 2. to employ the olfactory method (as standardized by the Environment Protection Agency of Japan) using a natural malodor as tobacco smell for detg. the MC effect of textile showing the meaninglessness and impossibility of the chem. anal. using an artificial malodor as ammonia, acetaldehyde, etc. instead of tobacco smell, 3. to report the detailed procedures of a successful detn. of malodor strength for a MC and untreated textiles through the above said olfactory method and a sensing method developed by the present authors showing that these two methods gave almost the same result. Following to the above reports, the present authors contribute the following points. Firstly, the MC agent and its unique properties are disclosed. It is a dild. aq. soln. of a linear **amphoteric** polyacrylamide (NOZEPAL) having mol. wt. above 2.0 x 10-7. (Intrinsic viscosity method) The dried thin film on the textile is insol. but highly swelling in water, and absorbes malodors which are confined effectively inside the dried or swollen film until the MC textile is washed or dry-cleaned. Thus, NOZEPAL creates the MC effect acting as a BLACK-HOLE to malodors. Secondly, a concrete formulation and notes on the treating process of the MC finish for a woolen suiting are given. A finishing with an aq. soln. of **amphoteric** polyacrylamide (NOZEPAL W) caused no deterioration of the treated woolen fabric in the appearance quality, handling, dyeing shade and mech. strength. Furthermore, the MC effect was maintained after each ten cycles of laundering and dry-cleaning. Almost the same effect was obtained when an polyester

filament suiting fabric was treated using a modified product (NOZEPAL PE) which was in the same category. Thirdly, this paper shows a method of imparting the MC and germicidal effects to polyester **non-woven fabrics**. The finish is obtained when the fabric is dipped in an aq. soln. contg. NOZEPAL PE and a bacteriostatic agent (LUNGPAL ML), and then dried. Even though thus finished fabric is bifunctional as intended, special care should be paid when this formulation is applied to the filters of air-conditioners with respect that the product liability suits for certain serious hazards caused by the multiplication of micro-organism inside the cooler and on the surface of the filter. Fourthly, the authors recommend to the personnel in MC fabric manufg. and distributing companies among readers to adopt the above said olfaction testings not only for the tech. benefit but also for surveying the consumer's hidden needs of MC textiles. Based on the author's many tests, the olfaction threshold of the most sensitive panel who participated in the tests was found commonly several hundred to or more times higher than that of the most insensible panel. The present authors, then, judged that this test would be highly useful to know the the market scale of different generation groups.

CC 40-0 (Textiles and Fibers)
Section cross-reference(s): 37

IT Acrylic polymers, processes
(**amphoteric**; malodor controlling of woolen and polyester textiles by)

L43 ANSWER 6 OF 19 HCA COPYRIGHT 2002 ACS

133:75308 Preparation of wetness-responsive **fibers** and **nonwoven fabrics** thereof for medical goods.

Omura, Isao; Inoue, Osamu; Kozeki, Tomoki (Pigeon Corporation, Japan; Toho Rayon Co., Ltd.). PCT Int. Appl. WO 2000039373 A1 20000706, 52 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1999-JP7346 19991227. PRIORITY: JP 1998-374437 19981228; JP 1998-374438 19981228; JP 1999-323154 19991112.

AB Title fibers contain monofilaments prepd. from both **anionic** and **cationic** resins. The fibers are esp. suitable for wetness-responsive **nonwoven fabrics** used as disposable **diapers**, **sanitary napkins**, and wet tissue paper. Thus, a piece of 40-g/m2 **nonwoven fabric** was prepd. from fibers comprising viscose rayon 70, **Na polyacrylate** 15, and a **cationic cellulose** 15 parts showing tensile strengths in the machine and transverse directions 3.19 and 1.07 kg/50 mm (under dry conditions), 2.78 and 0.84 kg/50 mm (after soaked in water), and

2.48 and 0.61 kg/50 mm (soaked in alk. soln.), resp.

IT **9003-04-7, Sodium polyacrylate**
(prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

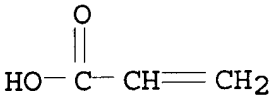
RN 9003-04-7 HCA
CN 2-Propenoic acid, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 2

CRN 79-10-7
CMF C3 H4 O2



IT **9004-32-4, Carboxymethyl cellulose**
**9005-32-7, Alginic acid**
**9057-06-1, Carboxymethyl starch**
(prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

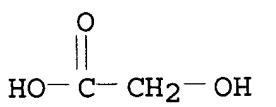
RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

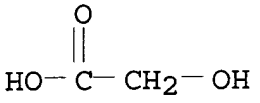
RN 9057-06-1 HCA
CN Starch, carboxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9005-25-8
CMF Unspecified
CCI MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



IC ICM D01F006-00
ICS D01F002-00; D04H001-48; A47K007-00; A61F013-18
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 43, 63
ST **cationic** resin water dispersible **nonwoven fabric** medical goods; **anionic** resin water dispersible **nonwoven fabric** medical goods; viscose rayon water dispersible **nonwoven fabric** medical goods; **sodium polyacrylate** water dispersible **nonwoven fabric** medical goods; cellulose water dispersible **nonwoven fabric** medical goods
IT Rayon, uses
(acrylic acid-grafted; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)
IT Rayon, uses
(acrylic acid-grafted; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)
IT Synthetic polymeric fibers, uses
Synthetic polymeric fibers, uses
(acrylic acid-rayon, graft; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)
IT Synthetic polymeric fibers, uses
(acrylic acid-rayon, graft; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)
IT Disposable **diapers**
Medical goods
**Nonwoven fabrics**
(prepn. of wetness-responsive **nonwoven fabrics** for medical goods)
IT Rayon, uses
(prepn. of wetness-responsive **nonwoven fabrics**

for medical goods)

IT Paper
(tissue, wet; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

IT Rayon, uses
(viscose; prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

IT **9003-04-7**, **Sodium polyacrylate**
9004-34-6D, **Cellulose**, **cationized**, uses
(prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

IT 64-19-7D, Acetic acid, polymers, sapond., uses 9000-30-0D, Guar gum, **cationized 9004-32-4**, **Carboxymethyl cellulose** 9004-53-9D, **Dextrin**, **cationized** 9005-25-8D, **Starch**, **cationized**, uses **9005-32-7**, **Alginic acid 9057-06-1**, **Carboxymethyl starch** 11138-66-2, **Xanthan** gum 25087-26-7D, Poly(methacrylic acid), salts 111367-41-0, Poly(1,1-dimethyl-3-methylenepiperidinium) chloride
(prepn. of wetness-responsive **nonwoven fabrics** for medical goods)

L43 ANSWER 7 OF 19 HCA COPYRIGHT 2002 ACS

133:31784 Resin compositions containing regenerated cellulose and water-soluble resins and fibers therefrom. Omura, Isao; Inoue, Osamu; Kozeki, Tomoki (Pigeon Corp., Japan; Toho Rayon Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2000159931 A2 20000613, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-333736 19981125.

AB The compns. for the fibers contain 1-99% regenerated cellulose, 1-99% water-sol. **cationic** resins, and optionally 1-99% water-sol. **anionic** resins. The fibers are esp. suitable for moisture-responsive **nonwoven fabrics** for disposable **diapers** and **sanitary napkins**. Thus, a compn. contg. viscose rayon 70, **Na polyacrylate** 15, and a **cationic cellulose** 15% was spun to give a fiber, carded to give a web, interlaced with water, and dried at 120.degree. to give a 40-g/m2 **nonwoven fabric** having tensile strength (Tb) in dry condition in machine and transverse directions (MD, TD) 3.19 and 1.07 kg/50 mm, Tb after soaking in water in MD and TD 2.78 and 0.84 kg/50 mm, and Tb after soaking in alk. soln. 2.48 and 0.61 kg/50 mm, resp.

IT **9003-04-7**, **Sodium polyacrylate** **9004-32-4** **9005-32-7**, **Alginic acid 9057-06-1**, **Carboxymethyl starch**
(compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

RN 9003-04-7 HCA

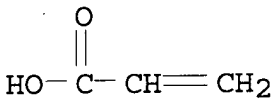
CN 2-Propenoic acid, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 2

CRN 79-10-7
CMF C3 H4 O2



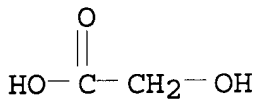
RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



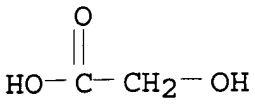
RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9057-06-1 HCA
CN Starch, carboxymethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9005-25-8
CMF Unspecified
CCI MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



IC ICM C08L001-00
ICS C08L001-26; C08L003-00; C08L003-02; C08L003-08; C08L005-00; C08L005-04; C08L033-02; C08L079-04; C08L101-14; D01F002-08

CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 38, 43, 63

ST regenerated **cellulose** water sol **cationic** resin; **anionic** resin water sol regenerated cellulose; viscose rayon **sodium polyacrylate** fiber; **nonwoven fabric** viscose rayon **sodium polyacrylate** ; **sanitary napkin** disposable **diaper nonwoven fabric**

IT Rayon, uses
(acrylic acid-grafted; compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT Synthetic polymeric fibers, uses
Synthetic polymeric fibers, uses
(acrylic acid-rayon, graft; compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT Disposable **diapers**
**Nonwoven fabrics**
(compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT Medical **goods**
(**sanitary napkins**; compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT Rayon, uses
(viscose or polynosic; compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT 9000-30-0, Guar gum
(**cationic**; compns. contg. regenerated cellulose and water-sol. resins and their **fibers** for moisture-responsive **nonwoven fabrics**)

IT 64-19-7D, Acetic acid, polymers, sapond., uses **9003-04-7, Sodium polyacrylate 9004-32-4 9005-32-7, Alginic acid 9057-06-1, Carboxymethyl starch** 11138-66-2, **Xanthan** gum 25087-26-7D, Poly(methacrylic acid), salts
(compns. contg. regenerated cellulose and water-sol. resins and

their **fibers** for moisture-responsive **nonwoven fabrics**)

L43 ANSWER 8 OF 19 HCA COPYRIGHT 2002 ACS
132:124049 Synthetic fibers treated with mixtures of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties and fibrous forms therefrom. Tsutsui, Akihiko; Suzuki, Masayasu; Katsuya, Masato (Chisso Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000034672 A2 20000202, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-211855 19980710.

AB Hydrophilic fibers are prepd. by treating thermoplastic fibers with mixts. comprising (A) 20-80% R1R2R3N+CH2COO- (R1 = C8-30 alkyl or alkyl group having H substituted with OH or carboxy group; R2, R3 = H, C1-5 alkyl or alkyl group having H substituted with OH or carboxy group) and (B) 80-20% esters of C5-30 hydroxy fatty acid esters having 10-100 mol% (on no. of OH groups in hydroxy fatty acid ester mol. chain) of OH groups alkoxylated with polyoxyalkylene units and C2-20 dicarboxylic acids to give fibers with finish content 0.2-1.5%. The fibers are useful for **diapers**, **sanitary napkins**, and wiping cloths for medical care (no data). A **spunbonded nonwoven fabric** of polypropylene **fibers** was embossed at 130.degree. and coated with a compn. contg. 40% ethoxylated hydrogenated castor oil maleic acid ester and 40% dimethyloctadecylbetaine to give a **nonwoven fabric** with finish content 0.5% and exhibiting lasting water absorption properties.

IC ICM D06M013-342
ICS A61F013-15; D04H001-42; A61F013-45

CC 40-9 (Textiles and Fibers)
Section cross-reference(s): 63

ST fiber synthetic hydrophilization alkoxylated hydroxy fatty acid ester finish; polyolefin fiber hydrophilization alkoxylated hydroxy fatty acid ester finish; polypropylene fiber hydrophilization alkoxylated hydroxy fatty acid ester finish; nonwoven synthetic hydrophilization alkoxylated hydroxy fatty acid ester finish; ethoxylated hydrogenated castor oil eater hydrophilization agent synthetic fiber; **amphoteric** betaine surfactant hydrophilization agent synthetic fiber; dimethyloctadecylbetaine hydrophilization agent synthetic fiber; **diaper** synthetic fiber hydrophilization; **sanitary napkin** synthetic fiber hydrophilization; medical care wiping cloth synthetic fiber hydrophilization

IT Surfactants
(**amphoteric**; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Carboxylic acids, uses
(dicarboxylic, esters, with alkoxylated hydroxy fatty acids; synthetic fibers treated with mixts. of betaine

**amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Fatty acids, uses
(esters, alkoxylated; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Polyoxyalkylenes, uses
(ethers with hydrogenated castor oil triglycerides, maleate esters; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Polyoxyalkylenes, uses
(ethers with hydrogenated castor oil triglycerides, succinate esters; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Polyolefin fibers
(ethylene, bicomponent with PET fibers; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Polyesters, uses
(fiber, bicomponent with polyethylene sheath; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for lasting hydrophilic properties)

IT Castor oil
(hydrogenated, ethoxylated, triglycerides, maleate or succinate derivs.; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for lasting hydrophilic properties)

IT Medical **goods**
(**sanitary napkins**; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties for)

IT **Nonwoven fabrics**
Textiles
Wettability
(synthetic **fibers** treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT Polyester fibers, uses
Polyolefin fibers
Polypropene fibers, uses
Synthetic polymeric fibers, uses

(synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT **Diapers**
(synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties for)

IT Betaines
(synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties for)

IT Medical goods
(wiping cloths for medical care; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties for)

IT Household furnishings
(wiping cloths, for medical care; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties for)

IT 9002-88-4, Polyethylene
(fiber, bicomponent with PET core; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT 25038-59-9, Poly(ethylene terephthalate), uses
(fiber, bicomponent with polyethylene sheath; synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for lasting hydrophilic properties)

IT 25085-53-4, Isotactic polypropylene
(**fiber**, **nonwoven**; synthetic **fibers** treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

IT 110-15-6D, Succinic acid, esters with ethoxylated hydrogenated castor oil triglycerides 110-16-7D, Maleic acid, esters with ethoxylated hydrogenated castor oil triglycerides 683-10-3, Lauryldimethylbetaine 820-66-6 25322-68-3D, Polyethylene glycol, ethers with hydrogenated castor oil triglycerides, maleate esters 25322-68-3D, Polyethylene glycol, ethers with hydrogenated castor oil triglycerides, succinate esters 131893-95-3
(synthetic fibers treated with mixts. of betaine **amphoteric** surfactants and dicarboxylic acid esters of alkoxylated hydroxy fatty acid esters for hygienic materials with lasting hydrophilic properties)

L43 ANSWER 9 OF 19 HCA COPYRIGHT 2002 ACS
129:332060 Light-activated antimicrobial and antiviral fabric materials. Wilson, John E.; Bull, Christopher (Fibermark Inc, USA). U.S. US 5830526 A 19981103, 22 pp. Division of U.S. Ser. No. 365,464. (English). CODEN: USXXAM. APPLICATION: US 1997-802710 19970219. PRIORITY: US 1994-365464 19941228.

AB A substrate such as a **woven** or **nonwoven** **fabric** contains a light-activated dye alone or in combination with addnl. conventional antimicrobial agents. The substrate (such as paper or fabric) is impregnated with a light-activated nonleachable dye having antimicrobial and/or antiviral characteristics. The dye is bound by a **cationic** or **anionic** binder such as a H2O sol. polymer or carrageenan. Upon exposure to normal light, the dye generates singlet O that kills microorganisms and viruses. Thus, air-laid **nonwoven** cellulose **fabric** treated with Rose Bengal in Darathane WB 4000 (urethane binder) and dried, after 1 h exposure to light (2000 ft-candles) killed 99% of the microorganism Staphylococcus aureus.

IT **9004-32-4**, Sodium **carboxymethylcellulose**
(dye binder; light-activated antimicrobial and antiviral fabric materials)

RN 9004-32-4 HCA

CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

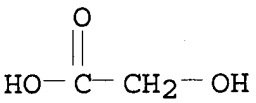
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



IC ICM B05D003-02
ICS B05D003-12; B05D005-00

NCL 427002100

CC 40-6 (Textiles and Fibers)

ST antiviral dyed **nonwoven fabric**; antibacterial dyed **nonwoven fabric**; Rose Bengal dyed **nonwoven fabric**; woven fabric dyed antibacterial; cellulosic fabric dyed antibacterial; **anionic** dyed **nonwoven fabric**; **cationic** dyed

**nonwoven fabric**

IT Polyamines (polymeric)
(**cationic**; light-activated antimicrobial and antiviral fabric materials)

IT **Diapers**

Household furnishings
**Sanitary napkins**

Sponges (artificial)
(light-activated antimicrobial and antiviral dye materials for fabrics for)

IT Cotton fabrics
**Nonwoven fabrics**

Paper
(light-activated antimicrobial and antiviral dye materials impregnated)

IT 9000-07-1, Carrageenan **9004-32-4**, Sodium **carboxymethylcellulose** 9005-38-3, Sodium **alginate**
(dye binder; light-activated antimicrobial and antiviral fabric materials)

L43 ANSWER 10 OF 19 HCA COPYRIGHT 2002 ACS
129:291125 Water-disintegrable detergent-evolving **cleaning cloths**. Yamashita, Motoko (Kobayashi Pharmaceutical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10251952 A2 19980922 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-55120 19970310.

AB The **cleaning cloths** are prepd. by coating one or two sides of sheets comprising water-sol. fibers and water-sol. binders with waterborne film-forming dispersions contg. surface active agents, thickeners, and org. solvents. Paper [contg. poly(vinyl alc.) binder] was coated with a dispersion contg. EtOH 89.95, hydroxypropyl cellulose 2.0, and Na lauryl sulfoacetate 8.0% to dry coating wt. 20 g/m2 to give a coated sheet exhibiting time required for disintegration in H2O .apprx.30 s.

IC ICM D04H001-42
ICS A47L013-16; D04H001-58

CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 46

ST detergent evolving water disintegrable **cleaning cloth**; sodium lauryl sulfoacetate detergent **cleaning cloth**; surfactant **cleaning cloth**

IT Sulfonic acids, uses
(alkene, salts, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Surfactants
(**amphoteric**, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Surfactants
(anionic, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Textiles
(cotton; water-disintegrable detergent-evolving **cleaning**

**cloths**)

IT Polyoxyalkylenes, uses
(detergent; water-disintegrable detergent-evolving **cleaning cloths**)

IT Glycols, uses
(ethers, solvents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Polyolefin fibers
Polyolefin fibers
Synthetic polymeric fibers, uses
Synthetic polymeric fibers, uses
(ethylene-vinyl acetate; water-disintegrable detergent-evolving **cleaning cloths**)

IT Polyolefin fibers
(ethylene; water-disintegrable detergent-evolving **cleaning cloths**)

IT Polyamide fibers, uses
Polyester fibers, uses
(fabrics; water-disintegrable detergent-evolving **cleaning cloths**)

IT Ethers, uses
(glycol, solvents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Hydrocarbons, uses
(halo, solvents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Sulfonic acids, uses
(linear-alkylbenzene-, salts, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Textiles
(linen; water-disintegrable detergent-evolving **cleaning cloths**)

IT Surfactants
(nonionic, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Liquids
(oils; water-disintegrable detergent-evolving **cleaning cloths**)

IT Solvents
(org.; water-disintegrable detergent-evolving **cleaning cloths**)

IT Alcohols, uses
(polyhydric, solvents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Esters, uses
(salts, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Textiles
(silk; water-disintegrable detergent-evolving **cleaning cloths**)

IT Alcohols, uses
Aldehydes, uses

Chlorides, uses
Hydrocarbons, uses
Ketones, uses
(solvents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Fatty acids, uses
(sucrose esters, detergents; water-disintegrable detergent-evolving **cleaning cloths**)

IT Gums and Mucilages
(thickeners; water-disintegrable detergent-evolving **cleaning cloths**)

IT Polysaccharides, uses
(thickeners; water-disintegrable detergent-evolving **cleaning cloths**)

IT Antifoaming agents
Cellulose pulp
Cleaning
Detergents
Dispersing agents
Dyes
**Nonwoven fabrics**
Parting materials
Pigments, nonbiological
Preservatives
Surfactants
Waterproofing agents
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Polymers, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Acrylic fibers, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Fibers
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Polyamide fibers, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Polyester fibers, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Polypropene fibers, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Rayon, uses
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Vinal fibers
(water-disintegrable detergent-evolving **cleaning cloths**)

IT Thickening agents
(water-disintegrable detergent-evolving **cleaning cloths** contg.)

IT Binders
(water-sol.; water-disintegrable detergent-evolving **cleaning cloths**)

IT Textiles
(wool; water-disintegrable detergent-evolving **cleaning cloths**)

IT 9002-89-5, Poly(vinyl alcohol)
(binder; water-disintegrable detergent-evolving **cleaning cloths**)

IT 1847-58-1, Sodium lauryl sulfoacetate 25322-68-3, Polyethylene glycol
(detergent; water-disintegrable detergent-evolving **cleaning cloths**)

IT 9002-88-4, Polyethylene 24937-78-8, Ethylene-vinyl acetate copolymer 25085-53-4, Isotactic polypropylene
(fiber; water-disintegrable detergent-evolving **cleaning cloths**)

IT 64-17-5, Ethyl alcohol, uses 64-18-6, Formic acid, uses 67-56-1, Methanol, uses 67-64-1, Acetone, uses 67-66-3, Chloroform, uses 68-12-2, Dimethylformamide, uses 75-09-2, Methylene chloride, uses 100-51-6, Benzyl alcohol, uses 106-93-4, Ethylene bromide 107-07-3, Ethylene chlorohydrin, uses 108-88-3, Toluene, uses 109-86-4, Methyl cellosolve 110-80-5, Ethyl cellosolve 110-86-1, Pyridine, uses 111-76-2, Butyl cellosolve 80762-96-5, Propylene glycol tert-butyl ether
(solvent; water-disintegrable detergent-evolving **cleaning cloths**)

IT 9000-30-0, Guar gum 9000-40-2, Locust-bean gum 9004-53-9, Dextrin 9004-57-3, Ethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9005-25-8, Starch, uses 9005-38-3, Sodium alginate 9062-14-0, Hydroxypropyl Ethyl cellulose 11138-66-2, Xanthan gum 39300-88-4, Tara gum
(thickener; water-disintegrable detergent-evolving **cleaning cloths**)

L43 ANSWER 11 OF 19 HCA COPYRIGHT 2002 ACS
129:176903 **Nonwoven fabrics** having pH-sensitive splittability, their manufacture, and process for splitting. Omura, Isao; Nakata, Yoichi (Pigeon Corp., Japan). Jpn. Kokai Tokkyo Koho JP 10183471 A2 19980714 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-345226 19961225.

AB The fabrics, useful for disposable **diapers**, **sanitary napkins**, etc., consist of H2O-sol. and -dispersible fibers, at least part of which are bound with **cationic** resins and **anionic** resins, and are manufd. by applying **cationic** resin- and **anionic** resin-contg. liq. on H2O-sol. **nonwoven fabrics** and drying. The fabrics are split in aq. media at pH .gtoreq.8.

Thus, a **nonwoven fabric** [rayon 90, poly(vinyl alc.) 6, and vinylon 4%] was coated with a H2O-EtOH soln. of 0.5% Hiviswako 103 (carboxy-contg. vinyl polymer) and 0.5% Leogard GP ( **cationic cellulose**) and dried to give a sample, which split in an alkali soln. at pH 9.0 but not in distd. H2O at pH 5.5.

IT **9004-32-4 9005-32-7, Alginic acid**
(**cationic** resin- and **anionic** resin-coated **nonwoven fabrics** having pH-sensitive splittability)

RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

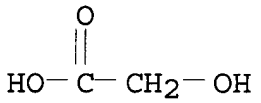
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM D06M015-05
ICS A61F013-15; D04H001-58; D06M015-03; D06M015-263

CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 43

ST splittable **nonwoven** rayon **cationic cellulose** blend; carboxy vinyl polymer coating splittable **nonwoven**; pH sensitive soly **nonwoven** coating

IT **Nonwoven fabrics**
Paper
(**cationic** resin- and **anionic** resin-coated **nonwoven fabrics** having pH-sensitive splittability)

IT Vinal fibers
(**cationic** resin- and **anionic** resin-coated **nonwoven fabrics** having pH-sensitive splittability)

IT Rayon, uses

(**fabrics**, **nonwoven**; **cationic** resin- and **anionic** resin-coated **nonwov n fabrics** having pH-sensitive splittability)

IT 9000-30-0D, Guar gum, **cationic** derivs. 9003-01-4, Poly(acrylic acid) 9003-03-6, Hiviswako 103 **9004-32-4** 9004-54-0D, Dextran, **cationic** derivs. **9005-32-7**, **Alginic acid** 11138-66-2, **Xanthan** gum 81859-24-7, Leogard GP 154530-42-4, Catinal LC 200
(**cationic** resin- and **anionic** resin-coated **nonwoven fabrics** having pH-sensitive splittability)

IT 9002-89-5, Poly(vinyl alcohol)
(fiber; **cationic** resin- and **anionic** resin-coated **nonwoven fabrics** having pH-sensitive splittability)

L43 ANSWER 12 OF 19 HCA COPYRIGHT 2002 ACS

129:176897 Solutions for imparting stimulus-responsive opening properties to **fibers** for manufacture of **nonwoven fabrics** openable in alkali solutions. Omura, Isao; Nakada, Yoichi (Pigeon Corp., Japan). Jpn. Kokai Tokkyo Koho JP 10195770 A2 19980728 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-345228 19961225.

AB The title solns. are prepd. by dissolving or dispersing mixts. contg. **cationic** polymers and **anionic** polymers in aq. solns. The solns. are useful for manuf. of sanitary products, disposable **diapers**, and wiping cloths flushable in toilets (no data). A **nonwoven fabric** comprising rayon 90, poly(vinyl alc.) fibers 6, and Vinylon fibers 4% was coated with an aq. soln. contg. 0.5% Hiviswako 103 (carboxyvinyl polymer) and 0.5% Leogard GP (**cationized cellulose**) and dried to give a **nonwoven fabric** with resin content 0.02 g/100 cm2. Fiber dispersibility and opening properties were good on stirring the **nonwoven fabric** in an aq. soln. (pH 9.0) for 30 s.

IT **9004-32-4**, **Carboxymethyl cellulose**
**9004-32-4D**, **Carboxymethyl cellulose**, reaction products with hydrochloric acid **9005-32-7**, **Alginic acid**
(solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns.)

RN 9004-32-4 HCA

CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

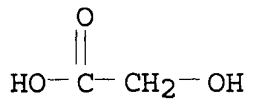
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



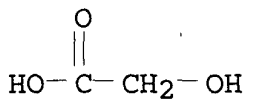
RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM D06M015-05
ICS A61F013-15; C08L005-08; C08L101-08; D04H001-58; D06M014-14; D06M014-16; D06M015-03; D06M015-263
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 63
ST **nonwoven fabric** water dispersible manuf; rayon **nonwoven fabric** water dispersible manuf; carboxyvinyl polymer finish water dispersible **nonwoven**; **cationized cellulose** finish water dispersible **nonwoven**; **sanitary napkin** water dispersible **nonwoven** manuf; disposable **diaper** water dispersible **nonwoven** manuf; wiping **cloth** water dispersible **nonwoven** manuf
IT Vinyl polymers
(carboxy-contg.; solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive

opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns.)

IT Rayon, uses
(**nonwovens** from vinal **fibers** and; solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns. for)

IT Medical **goods**
(**sanitary** products; solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns. for)

IT **Anionic** polyelectrolytes
**Cationic** polyelectrolytes
**Nonwoven fabrics**
(solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns.)

IT Fibers
(solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns.)

IT Disposable **diapers**
(solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns. for)

IT Household furnishings
(wiping cloths; solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns. for)

IT 9002-89-5, Poly(vinyl alcohol)
(**fibers**, **nonwovens** from rayon and; solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns. for)

IT 7647-01-0D, Hydrochloric acid, reaction products with CM-cellulose 9000-30-0D, Guar gum, **cationized** 9003-01-4, Poly(acrylic acid) 9003-03-6, Hiviswako 103 **9004-32-4**, **Carboxymethyl cellulose 9004-32-4D**, **Carboxymethyl cellulose**, reaction products with hydrochloric acid 9004-34-6D, **Cellulose**, **cationized** 9004-53-9D, **Dextrin**, **cationized 9005-32-7**, **Alginic acid** 11138-66-2, **Xanthan** gum 25087-26-7, Poly(methacrylic acid) 81859-24-7, Leogard GP

(solns. contg. **anionic** polymers and **cationic** polymers for imparting stimulus-responsive opening properties to **fibers** for manuf. of **nonwoven fabrics** openable in alkali solns.)

L43 ANSWER 13 OF 19 HCA COPYRIGHT 2002 ACS
129:162765 Stimulus-responsive **nonwoven fabrics** disintegrable in aqueous alkaline solutions and manufacture thereof and treatment of the **nonwoven fabrics** with aqueous alkaline solutions. Omura, Isao; Nakata, Yoichi (Pigeon Corp., Japan). Jpn. Kokai Tokkyo Koho JP 10195769 A2 19980728 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-345227 19961225.

AB The **nonwoven fabrics** comprise **nonwoven** -forming multiple **fibers** and alkali-responsive binders comprising **cationic** polymers and **anionic** polymers and optionally contain multiple fibers having **cationic** groups and multiple fibers having **anionic** groups and are openable by treating the **nonwoven fabrics** with aq. solns. at pH .gtoreq.8. The **nonwoven fabrics** are useful for sanitary products, disposable **diapers**, and wiping cloths and are flushable in toilets (no data).

IT **9004-32-4**, **Carboxymethyl cellulose**
**9005-32-7**, **Alginic acid**
(binder; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)

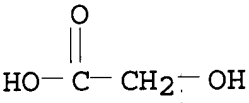
RN 9004-32-4 HCA
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9005-32-7 HCA
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM D06M015-05

ICS A61F013-15; D04H001-58; D06M013-11; D06M015-03; D06M015-263
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 63
ST **nonwoven fabric** water dispersible manuf; sanitary product water dispersible **nonwoven** manuf; disposable **diaper** water dispersible **nonwoven** manuf; wiping **cloth** water dispersible **nonwoven** manuf; **cellulose cationized** binder **nonwoven fabric**; **anionic** polymer binder **nonwoven fabric**
IT Binders
(alkali-responsive; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT **Cationic** polyelectrolytes
(binders, contg. **anionic** polymers; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT **Anionic** polyelectrolytes
(binders, contg. **cationic** polymers; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT Vinyl polymers
(carboxy-contg., binders; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT Medical **goods**
(**sanitary** products; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof for)
IT **Nonwoven fabrics**
(stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT **Fibers**
(stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)
IT Disposable **diapers**
(stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof for)
IT Household furnishings
(wiping **cloths**; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof for)
IT 9000-30-0D, Guar gum, **cationized** 9003-01-4, Poly(acrylic acid) **9004-32-4**, **Carboxymethyl cellulose** 9004-34-6D, **Cellulose, cationized** 9004-53-9D, **Dextrin, cationized 9005-32-7**, **Alginic acid** 11138-66-2, **Xanthan** gum 25087-26-7, Poly(methacrylic acid)
(binder; stimulus-responsive **nonwoven fabrics** disintegrable in aq. alk. solns. and manuf. thereof)

L43 ANSWER 14 OF 19 HCA COPYRIGHT 2002 ACS
129:55270 Manufacture of electrolyte solution-absorbing polymers and absorbents therefrom. Ogura, Kuniyoshi (Toyobo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10147616 A2 19980602 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-309666 19961120.
AB The title polymers are manufd. by (1) neutralizing 20-80 mol% CO2H of radical polymerizable monomers with amino compds. having 1 OH, (2) copolymg. the monomers with crosslinkable monomers, which are simultaneous crosslinkable during polymn. or crosslinkable after polymn., (3) esterifying unneutralized CO2H with the amino compds. to form **amphoteric** polymers, and (4) optionally crosslinking them. Alternatively, the order of the steps 1 and 2 may be reversed. The absorbents, suitable for **diapers** etc., are obtained by impregnating substrates selected from **fiber**, **yarn**, **thread**, **non-woven fabric**, **woven fabric**, **fabric**, paper, sheet, film, and their composites with the polymers. Thus, acrylic acid was neutralized with diethylaminoethanol at neutralization degree 60 mol% and copolymd. with hydroxyethyl acrylate and N-methylolacrylamide at 65.degree. for 6 h to give a copolymer soln., which was esterified and crosslinked at 180.degree. to give a film showing absorption ratio 0.9% NaCl 75 g/g. Then, a **non-woven fabric** (100% polyester) was impregnated with the copolymer soln., dried, and heat-treated at 180.degree. to give an absorbent (polymer content 55%) showing absorption ratio of artificial seawater 8 g/g.
IC ICM C08F008-14
ICS A61F013-46; B01J020-26; B32B005-02; C08F020-06; C09D133-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 35, 40
ST acrylic acid ethylaminoethanol methylolacrylamide **amphoteric** polyelectrolytes; hydroxyethyl acrylate **amphoteric** absorbent **nonwoven fabric**
IT **Amphoteric** polyelectrolytes
(acrylic polymers; electrolyte soln.-absorbing polymers and absorbents therefrom)
IT Fabrics
Films
Materials
**Nonwoven fabrics**
Paper
Threads
Yarns
(substrates; electrolyte soln.-absorbing polymers and absorbents therefrom)

L43 ANSWER 15 OF 19 HCA COPYRIGHT 2002 ACS
125:331503 Rewettable polyolefin **fibers** for **nonwoven fabric** layer in **diapers**. Carstensen, Peter; Revsbaaek, Per; Dyrmose-Jensen, Katharine (Danaklon A/s, Den.; Carstensen, Peter; Revsbaaek, Per; Dyrmose-Jensen, Katharine). PCT

Int. Appl. WO 9633303 A1 19961024, 38 pp. DESIGNATED STATES: W: AU, BR, CA, CN, CZ, CZ, DE, DK, EE, EE, GE, HU, IS, JP, KR, LT, LV, MX, NO, NZ, PL, RU, SG, SI, SK, SK, UA, US, VN; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-DK178 19960419. PRIORITY: DK 1995-468 19950421.

AB Synthetic fibers are prepd. by applying to spun filaments a first spin finish comprising .gtoreq.1 hydrophilic lubricant, stretching the filaments, applying to the stretched filaments a second spin finish comprising .gtoreq.1 **cationic** antistatic agent, and crimping, drying, and cutting the filaments to obtain hydrophilic staple fibers. The spin finishes, which may each contain a hydrophilic lubricant and a **cationic** antistatic agent, may also contain a small amt. of a polydiorganosiloxane. The fibers may be carded at high speeds and are useful for the prepn. of hydrophilic **nonwoven** materials that can maintain wettability after one or several wettings. Polypropylene fibers were finished (both spin finishes of fatty alc. ethoxylate lubricant and fatty acid/polyamine condensate antistat), crimped, annealed, cut to staple fibers of fineness 2.2 dtex, carded, and thermally bonded (161.degree.) to form **nonwovens** having tensile strength (machine direction) 42.0 g, bondability index 23, and rewet 0.3%, vs. 36.3, 16.1, and 0.26, resp., using **anionic** ethoxylated silicone spin finish.

IC ICM D01F006-04
ICS D06M013-46; D06M015-647
ICI D06M101-20
CC 40-9 (Textiles and Fibers)
ST polyolefin **fiber** hydrophilic finish **nonwoven**; **diaper** water repellent **nonwoven** finished; rewettable hydrophilic finished polyolefin fiber
IT Quaternary ammonium compounds, uses
(finish for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)
IT Lubricants
(hydrophilic, in finish for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)
IT Antistatic agents
(in finish for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)
IT Siloxanes and Silicones, uses
(in finish for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)
IT **Diapers**
(rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in)
IT Textile easy-care finishing
(rewettable hydrophilic polyolefin **fibers** for

**nonwoven fabric** layer in **diapers**)

IT Polypropene fibers, uses
(rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)

IT Alcohols, uses
Amides, uses
Esters, uses
(alkoxy, lubricant for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)

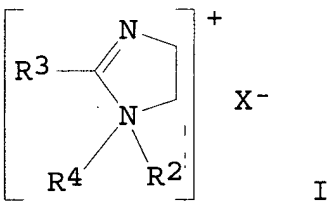
IT Alcohols
(ethoxylated, finish for polyolefin fibers; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)

IT **Textiles**
(**nonwoven**, rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)

IT 25085-53-4, Isotactic polypropylene
(fiber; rewettable hydrophilic polyolefin **fibers** for **nonwoven fabric** layer in **diapers**)

L43 ANSWER 16 OF 19 HCA COPYRIGHT 2002 ACS
111:120980 Hydrophilization agents for polyolefin-containing synthetic fibers for **diapers** and **sanitary napkins**
. Kato, Tomohiro; Takasu, Yoshio; Minafuji, Makoto (Takemoto Oil and Fat Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 01006176 A2 19890110 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1987-158162 19870625.

GI




I

AB The title agents comprising .gtoreq.50% alkylolamides RCON(CH2CH2OH)2 (R = C11-17 alkyl or alkenyl) and optionally contg. surfactants [e.g. I (R2 = H, C1-2 alkyl, hydroxyalkyl, C12-18 alkyl or alkenyl; R3 = C11-17 alkyl, alkenyl; R4 = CH2CH2OH, CH2CH2NH2, CH2CH2NHCOMe, CH2CH2NHCOR3; X = halo, org. or inorg. residue, C1-2 alkyl sulfate or alkyl phosphate] impart durable hydrophilic properties to fibers. Spun staple fibers from polyethylene as sheath and a polyester as core were treated with 1.0% soln. of 80:20 mixt. (A) contg. C17H35CON(CH2CH2OH)2 (II) and C11H23CON(CH2CH2OH)2 for 2 min at 40.degree., squeezed to 20% pickup, and dried to give

fibers with finish content 0.2%. A **nonwoven web** of these **fibers** exhibited time for absorption of 0.4 mL H2O, 20 s (after 1 cycle), 37 s (after 2 cycles), and 463 (after 3 cycles), vs. 20 s and .gtoreq. 60 s (after 1 cycle), resp., using Na dioctyl sulfosuccinate instead of the A mixt.

IC ICM D06M013-40
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 40
IT Polyolefin fibers
(hydrophilization agents for, alkylolamides or their mixts. with surfactants as, for **sanitary napkins**)
IT Surfactants
(**anionic**, hydrophilization agents, with alkylolamides, for polyolefin-contg. fibers for **sanitary napkins**)
IT Surfactants
(**cationic**, hydrophilization agents, with alkylolamides, for polyolefin-contg. fibers for **sanitary napkins**)
IT Surfactants
(nonionic, hydrophilization agents, with alkylolamides, for polyolefin-contg. fibers for **sanitary napkins**)
IT Amides, biological studies
(N-(hydroxyalkyl), hydrophilization agents, for polyolefin-contg. fibers for **sanitary napkins**)

L43 ANSWER 17 OF 19 HCA COPYRIGHT 2002 ACS
109:130766 Odor-absorbing **nonwoven webs**. Matsukawa, Noritomo; Miyazaki, Takashi; Kudo, Yuji; Imoto, Tomosaku; Fujioka, Takayasu; Inoue, Akemi (NOK Corp., Japan). Jpn. Kokai Tokkyo Koho JP 63050577 A2 19880303 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-190314 19860813.
AB The title webs with lasting deodorizing effect are prepd. by sandwiching microporous beads contg. liq. deodorizing agents between 2 webs. Silica gel (Silica Gel 5D, 50 g) was immersed in 50 g aq. 5 g/100 mL Fe phthalocyanineoctacarboxylic acid soln. for 5 min at room temp. and stirred 30 min to give odor-absorbing beads (A). Silica gel (50 g) was immersed in a liq. contg. 40 g FeSO4 and 10 g glycerol and stirred to give odor-absorbing beads (B), and 50 g silica gel was immersed in 50 g Jollive A-1 (**amphoteric** betaine surfactant) to give odor-absorbing beads (C). Then, A beads 300, B beads 150, and C beads 150 g were mixed and sandwiched between 2 **nonwoven webs** and quilted to give an odor-absorbing mat.
IC ICM D06M021-00
ICS A61L009-00
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 63
ST odor absorbing nonwoven mat; absorbent odor nonwoven mat; **web nonwoven** odor absorbing
IT Absorbents

(for odors, **nonwoven webs** contg. porous beads contg. liq. deodorizing agents as)

IT Mats
(odor-absorbing, **nonwoven webs** contg. porous beads contg. liq. deodorizing agents as)

IT Deodorants
(porous beads contg., for odor-absorbing **nonwoven webs**)

IT Surfactants
(**amphoteric**, deodorizing agents, microporous silica beads contg., for odor-absorbing webs)

IT Cushions
(pillows, covers for, odor-absorbing **nonwoven webs** contg. porous beads contg. liq. deodorizing agents for)

IT Medical **goods**
(**sanitary napkins**, odor-absorbing **nonwoven webs** contg. porous beads contg. liq. deodorizing agents for)

IT 7664-41-7, Ammonia, uses and miscellaneous 7783-06-4, Hydrogen sulfide (H2S), uses and miscellaneous
(absorbents for, **nonwoven webs** contg. porous beads contg. liq. deodorizing agents as)

IT 7631-86-9, Silica, uses and miscellaneous
(microporous beads, contg. liq. deodorizing agents, for **nonwoven webs**)

L43 ANSWER 18 OF 19 HCA COPYRIGHT 2002 ACS
80:84670 **Nonwoven textile fabrics**.
Plummer, Charles (Johnson and Johnson). S. African ZA 7108358 19730614, 35 pp. (English). CODEN: SFXXAB. APPLICATION: ZA 1971-8358 19711214.

AB **Nonwoven textiles** with good softness, drape, hand, long- and cross-tensile strength, wet abrasion resistance, washability, absorptive capacity, and opacity were prepd. from 30-90% structural nylon and(or) rayon fibers of av. length .sim. 1/4 in.-.sim. 1 1/4 in., and 70-10% relatively short wood fibers of av. length .leq. 1/25-1/6 in., treated with a closely-spaced non-migrating intermittent print pattern of synthetic resin binder bonding the **nonwoven**, particularly the structural **fibers**, and a substantially uniform overall application of a relatively soft, synthetic resin binder bonding the **nonwoven** , particularly the wood **fibers**. Thus, a wet formed **nonwoven** was prepd. from 75% rayon fibers (denier 1.5, length 3/8 in.) and 25% unbeaten, unrefined hardwood sulfite wood pulp fibers, slowly to a consistency of .sim. 1 wt. % in a stock chest contg. .sim. 50% (on total dry fiber wt.) commercial self crosslinking (methylol functionality) **anionic** ethyl acrylate acrylic binder, .sim. 1% commercial (OH-group functionality) **cationic** polyelectrolyte deposition aid to form a total wt. fibrous structure of 230 grains/yds2, of which 184 grains is fiber wt. and 46, resin particle wt., i.e. equiv. to a 20%

add-on of resin binder. The fiber structure was dried at 250.deg.F, with the indiv. overlapping and intersecting fibers bonded to each other, then passed through a double-diagonal diamond pattern app. and contacted with poly(ethyl acrylate) [9003-32-1]-based binder to total finished wt. 291 grains (.sim. 26% add on), then passed through a saturation bonding device or patter for an addnl. 3% wt. add-on of the acrylic resin, and dried to give finished fabric with properties suitable for **diaper** facings.

IC D06C
CC 39-11 (Textiles)
ST nylon rayon wood **nonwoven**; disposable **garment** bonded **nonwoven**; **diaper nonwoven**; polyacrylate binder **nonwoven diaper**
IT Acrylic polymers
(binders, rayon-wood **fiber nonwovens** contg., absorbent soft)
IT Polyamide **fibers**
(**nonwovens** contg. rayon and wood fibers, resin-bonded, absorbent soft)
IT Pulp, cellulose
(**nonwovens** contg. rayon, resin-bonded, absorbent soft)
IT Rayon, uses and miscellaneous
(**nonwovens** contg. wood **fiber**, resin-bonded, absorbent soft)
IT 1,3-Butadiene, polymer with ethenylbenzene, carboxylated
Benzene, ethenyl-, polymer with 1,3-butadiene, carboxylated
(binders, rayon-wood **fiber nonwovens** contg., absorbent soft)
IT 9003-32-1 24937-78-8 25265-15-0
(binders, rayon-wood **fiber nonwovens** contg., absorbent soft)

L43 ANSWER 19 OF 19 HCA COPYRIGHT 2002 ACS
80:16411 **Nonwoven textile fabrics**.
Plummer, Charles H. (Johnson and Johnson). U.S. US 3753826 19730821, 8 pp. (English). CODEN: USXXAM. APPLICATION: US 1971-125239 19710317.
AB A **nonwoven textile** was prepd. with good softness, drape, hand, long and cross tensile strength, wet abrasion resistance, washability, absorptive capacity, and opacity, and sheet form from .sim.30-90% overlapping, intersecting structural fibers of av. length 0.25-1.25 in., and 10-70% fibers of av. length from .leq.1/25 to 1/6 in., bonded together in a closely-spaced nonmigrating print pattern of resin binder areas, and contg. 2-10% resin based on total wt. of finished fabric. The fabrics were wet-formed from rayon, wood pulp, and optionally nylon 66 fibers and bonded with viscose, carboxylated butadiene-styrene resin, or acrylic resin. Thus, a textile was prepd. from 75% rayon fibers (denier 1.5, length 3/8 in.) and 25% unbeaten, unrefined hardwood sulfite wood pulp fibers slurried to .sim.1% by wt. consistency in a stock chest contg. .sim.50 wt. % (based on total dry fiber wt.) self-crosslinking **anionic** poly(Et acrylate) [9003-32-1],

and .sim.1%, based on total dry resin solids, OH-functional **cationic** polyelectrolyte deposition acid to 20% add-on of resin binder particles. The structure was dried, passed through a double-diagonal diamond pattern bonding app. with poly(Et acrylate) binder to .sim.26% (based on fabric wt.) print binder add-on, padded with a similar binder to 3% (based on dry solids) resin uptake and dried to give a fabric suitable for **diaper** facings.

IC B32B
NCL 156277000
CC 39-11 (Textiles)
ST rayon wood pulp **nonwoven**; nylon rayon pulp **nonwoven**; tensile strength **nonwoven textile**; washability **nonwoven textile**; absorption **nonwoven textile**; printing bonding **nonwoven textile**
IT Acrylic polymers
(adhesives, for wet-forming of **nonwoven textiles**)
IT Pulp, cellulose
Synthetic **fibers**
(**nonwoven textiles** contg., wet-forming of, acrylic adhesives for)
IT Rayon, uses and miscellaneous
(**nonwoven textiles** contg., wet-forming of, acrylic binders for)
IT **Textiles**
(**nonwoven**, acrylic resins for wet-forming of)
IT 9003-32-1
(binders, for wet-forming of **nonwoven textiles**)

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FILE COVERS 1967 TO 25 Mar 2002 (20020325/ED)

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L82 ANSWER 1 OF 3 PAPERCHEM2 COPYRIGHT 2002 IPST
AN 78:9187 PAPERCHEM2
SN 000136818
DN AB4909187
TI METHOD OF CONTROLLING WATER REPELLENCY IN **NONWOVEN** FABRIC
IN Butterworth, G. A. M.; Fillwalk, F.; Johnson & Johnson.
PI US 4112153 19780905
AI US 1977-783928 19770404
SO p. 7; 21 claims.
DT Patent
FS PAPERCHEM
LA English

AB A method is provided for increasing the water repellency of portions of a normally water-wettable bonded **nonwoven** fabric bearing an **anionic** or **cationic** surfactant. The method comprises heating the selected portion of the fabric to an elevated temp. at which the surfactant is unstable, and maintaining the area at the elevated temp. for a time sufficient to denature the surfactant without damaging the fabric. The surfactants used may be, for example, sodium dioctylsulfosuccinate or polyoxyethylene sorbitan monolaurate. The heat treatment may be carried out for 10-100 sec at 240-600 F. The process is particularly adapted to the manufacture of a bonded **nonwoven** fabric for use as facing material in disposable **diapers**. In such fabric, the surfactant is added to facilitate distribution of the binder. **Diaper** performance can be improved by reducing the wettability in certain portions of the facing sheet, such as around the margins, and this effect can be achieved by the process of this invention.

NCL 427-390E

CT ALCOHOLS; ALDITOLS; ANHYDRIDES; **ANIONIC** COMPOUNDS; CARBOXYLIC ACIDS; **CATIONIC** COMPOUNDS; **DIAPERS**; DISPOSABLES; ENGLISH; ETHYLENE; FACINGS; FATTY ACIDS; GLUCITOL; HEAT TREATMENT; HEATING; HIGH TEMPERATURE; HYDROCARBONS; LAURIC ACID; **NONWOVENS**; OLEFINS; PATENTS; POLYOLS; POLYOXY COMPOUNDS; SURFACTANTS; SYNTHETIC POLYMERS; TEMPERATURE; UNITED STATES; WATER REPELLENCE; WETTABILITY

L82 ANSWER 2 OF 3 PAPERCHEM2 COPYRIGHT 2002 IPST

AN 77:7756 PAPERCHEM2

SN 000123697

DN AB4807756

TI ARTICLE FOR TREATING SECRETING FLUID OF THE HUMAN BODY

IN Nagano, T.; Fujinami, N.

PI US 4026291 19770531

AI US 1975-578068 19750516

PRAI JP 1974-58922 19740525

SO p. 6. 1 claim.

DT Patent

FS PAPERCHEM

LA English

AB An absorbent pad assembly, of use as a disposable **diaper**, **sanitary napkin**, or the like, is designed to deodorize, sterilize, and coagulate the human body fluids collected. The assembly includes the absorbent pad itself, a waterproofing covering (e.g., a cellulose fiber sheet coated with a silicone preparation) over the back of the pad, and an outer cover which can be made of conventional pulp in the form of tissue paper or **nonwoven** fabric. The absorbent pad is made of a **cationized cellulose** fiber containing 0.5-10.0% N, and is treated with an astringent or gelatinizing agent such as tannic acid, alum, ferric chloride, PEO, or CMC. The fibers used to make the absorbent pad can be obtained by treating pulp fibers with aq. alkali and then reacting them with a solution of calcium

cyanamide.
NCL 128-284
CT ABSORBENT PADS; ADDITION POLYMERS; ALKALI TREATMENT; ALKALINE EARTH METAL COMPOUNDS; ALUMINUM COMPOUNDS; ALUMINUM SULFATE; CALCIUM COMPOUNDS; CARBOXYALKYL CELLULOSES; **CARBOXYMETHYL CELLULOSE**; CATIONS; CELLULOSE ETHERS; CELLULOSE FIBERS; CHEMICAL COMPOSITION; CHEMICAL REACTIONS; CHEMICAL TREATMENT; CHLORIDES; COAGULATION; COATED PAPERS; COATINGS; COVERING; CYANAMIDES; DEODORIZATION; **DIAPERS**; DISPOSABLES; GELATIN; GLUCOSE DERIVATIVES; GLUCOSE ESTERS; HALIDES; HALOGEN COMPOUNDS; IONS; IRON CHLORIDES; IRON COMPOUNDS; LIQUIDS; NITROGEN; NITROGEN COMPOUNDS; NONMETALS; **NONWOVENS**; ODOR CONTROL; PATENTS; PHENOLS; POLYCONDENSATES; POLYETHERS; POLYETHYLENE OXIDE; POLYSILICONES; PROTEINS; PULPS; **SANITARY NAPKINS** ; SHEETS; STERILIZATION; SULFATES; SULFUR COMPOUNDS; TANNINS; THERMOPLASTICS; TISSUE PAPERS; UNITED STATES; WATER REPELLENCE; ENGLISH

L82 ANSWER 3 OF 3 PAPERCHEM2 COPYRIGHT 2002 IPST
AN 67:6359 PAPERCHEM2
SN 000006359
DN AB3806359
TI DISPOSABLE FIBROUS DUSTING DEVICE
IN van Loo, W. J., Jr.; Dundon, J. P.; American Cyanamid Co.
PI US 3334373 19670808
SO 1 claim. M. 6234..
DT Patent
FS PAPERCHEM
LA English
AB A dusting device consists of a sheet of **nonwoven** cellulosic material such as creped tissue paper impregnated with the reaction product of **anionic** and **cationic** surfactants, such as sodium bis(tridecyl) sulfosuccinate and stearamidopropyl dimethyl 2-hydroxyethyl ammonium nitrate.
NCL 15-506
CT ABSORBENT PAPERS; CREPED PAPERS; IMPREGNATED PAPERS; SURFACTANTS; TISSUE PAPERS; **WIPERS**; UNITED STATES; ENGLISH; PATENTS

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FILE 'JAPIO' ENTERED AT 11:12:16 ON 18 APR 2002
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FILE LAST UPDATED: 09 APR 2002 <20020409/UP>
FILE COVERS 1976 THROUGH NOV 30, 2001

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L81 ANSWER 1 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 2000-256969 JAPIO
TITLE: WET **CLOTH** FOR **CLEANING**,

TITLE: WATER-REPELLING AND GLAZING OF COATED MEMBRANE
INVENTOR: NONAKA JUNICHI; HIDAKA RYUTARO
PATENT ASSIGNEE(S): SOFT 99 CORPORATION:KK)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 2000256969A | | 20000919 | Heisei | D06M015-643 |

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1999-103055 19990306
ORIGINAL: JP11103055 Heisei
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2000

AN 2000-256969 JAPIO
AB PROBLEM TO BE SOLVED: To obtain a wet cloth capable of imparting a water-repelling property and gross to a coated membrane only by wiping the body of an automobile, by impregnating an aqueous emulsion prepared by using a water-repelling component with an emulsifying agent to a cloth.
SOLUTION: This wet **cloth** for **cleaning**, water-repelling and glazing of a coated membrane is obtained by impregnating an aqueous emulsion obtained by using a water-repelling component such as a silicone compound, fluorine compound, wax and waxy material, obtained e.g. by using 0.1-10 wt.% dimethylpolysiloxane with an emulsifying agent consisting of any of an **anionic**, a **cationic**, a nonionic or an **amphoteric** surfactant to a material consisting of a natural fiber, synthetic fiber or their mixed material e.g. a **non-woven** fabric having a 3 layered structure obtained e.g. by arranging a lipophilic fiber at the outside and putting a core of hydrophilic fiber in between, by 1.5-3.0 fold amount.
COPYRIGHT: (C)2000,JPO
AN 2000-256969 JAPIO
IC ICM D06M015-643
ICS B24B029-00 ; D04H001-42 ; D06M015-244
ICA A47L013-17 ; C09K003-18

L81 ANSWER 2 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1998-147616 JAPIO
TITLE: PRODUCTION OF SALT WATER-ABSORBABLE POLYMER AND ABSORBABLE MATERIAL COATED BY THE SAME POLYMER
INVENTOR: OGURA KUNIYOSHI
PATENT ASSIGNEE(S): TOYOBO CO LTD, JP (CO 000316)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 10147616 | A | 19980602 | Heisei | (6) C08F008-14 |

JP

APPLICATION INFORMATION
ST19N FORMAT: JP1996-309666 19961120
ORIGINAL: JP08309666 Heisei
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 98, No. 6

AN 1998-147616 JAPIO
AB PURPOSE: TO BE SOLVED:To provide a method for producing a salt water-absorbable polymer having excellent properties for absorbing an aqueous solution of an electrolyte, especially the solution of the electrolyte having a high concentration, and useful for a paper **diaper**, etc., by copolymerizing a specific radically polymerizable monomer and a cross-linkable monomer. CONSTITUTION: A radically polymerizable monomer containing 20-80mol% carboxylic acid (e.g. acrylic acid) neutralized by (B) an amino compound having only one hydroxyl group (e.g. dimethylaminomethanol), and (C) a cross-linkable monomer capable of cross-linking the polymer simultaneous with the polymerization or after the polymerization are copolymerized, and further, the nonneutralized carboxyl group and the hydroxyl group of the component B are esterified to form an **amphoteric** polymer in the method for producing a salt water-absorbable polymer, and the esterified copolymer, is, if necessary, cross-linked.
AN 1998-147616 JAPIO
IC ICM (6) C08F008-14
ICS (6) A61F013-46; (6) B01J020-26; (6) B32B005-02; (6) C08F020-06
ICA (6) C09D133-02

L81 ANSWER 3 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1997-310228 JAPIO
TITLE: HIGHLY SALT WATER-ABSORBING FIBER HAVING CONJUGATE STRUCTURE AND ITS PRODUCTION
INVENTOR: OGURA KUNIYOSHI
PATENT ASSIGNEE(S): TOYOBO CO LTD, JP (CO 000316)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 09310228 | A | 19971202 | Heisei | (6) D01F008-10 |

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1996-127203 19960522
ORIGINAL: JP08127203 Heisei
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 97, No. 12

AN 1997-310228 JAPIO
AB PURPOSE: TO BE SOLVED:To obtain the subject fiber having high absorbability for aqueous electrolyte solutions, excellent in fiber physical properties and in gel strength after the absorption of water, and useful as an absorbing material for paper **diapers**, **sanitary napkins**, etc., and as a water-stopping material, etc., by processing the crosslinked product

of a vinylic copolymer having **amphoteric** side chain groups and a reinforcing polymer into the conjugate structure.
CONSTITUTION: highly salt water-absorbing fiber having a conjugate structure is obtained by processing the crosslinked product of a copolymer I containing an **amphoteric** vinylic monomer (e.g. a carboxybetaine type function group-having vinylic monomer of the formula (R1 is H, methyl; R2 is a 0-6C alkylene, etc.,; R3, R4 are each independently methyl, ethyl; R5 is a 1-10C alkylene, etc.,; X is an ester, an amide, etc.,) in an amount of 10-99wt.% and at least one kind of reinforcing polymer II into a conjugate structure such as a sheath-core type structure, a sea-island type structure or a side-by-side type structure, in which the components are heterogeneously distributed.
AN 1997-310228 JAPIO
IC ICM (6) D01F008-10
ICS (6) B01J020-26; (6) B01J020-28; (6) C08L025-02; (6) C08L029-04
ICA (6) C08F012-26; (6) C08F220-36

L81 ANSWER 4 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1997-137072 JAPIO
TITLE: WATER-ABSORBING COMPLEX, PRODUCTION THEREOF AND WATER-ABSORBING ARTICLE
INVENTOR: HARADA NOBUYUKI; MOTONO YOSHIHIRO; SAKAMOTO SHIGERU
PATENT ASSIGNEE(S): NIPPON SHOKUBAI CO LTD, JP (CO 000462)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 09137072 | A | 19970527 | Heisei | (6) C08L101-14 |

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1996-240694 19960911
ORIGINAL: JP08240694 Heisei
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 97, No. 5
AN 1997-137072 JAPIO
AB PURPOSE: TO BE SOLVED:To obtain the above new complex comprising a **cationic** watersoluble polymer and an **anionic** water-soluble polymer particles fixed on a support, excellent in water soluble amount under pressure, vertical absorbing force and softness, hardly falling off the waterabsorbing polymer and useful for paper **diaper**, etc.
CONSTITUTION: **Anionic** water-absorbing polymer particles 4 are fixed through (B) a **cationic** water-absorbing polymer 3 to (C) a support, preferably a fibrous material 2 and the component B is contained in an amount of 1-1000 pts. by wt. based on 100 pts. by wt. component C and the component A is contained in an amount of 10-1000 pts. by wt. based on 100 pts.wt. component B. Furthermore, a raw material monomer capable of forming the component B is attached to the component C and the monomer is polymerized or subjected to

polycondensation to fix the component B to the component C and then, the component A is fixed to the component B to provide the objective complex 1.

AN 1997-137072 JAPIO
IC ICM (6) C08L101-14
ICS (6) B01J020-26; (6) B32B027-12; (6) C08F002-00; (6) C08L033-02; (6) C08L033-14; (6) C08L033-24; (6) C08L039-00

L81 ANSWER 5 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1996-010284 JAPIO
TITLE: PRODUCTION OF CELLULOSIC FIBER AND ABSORBENT STRUCTURE
INVENTOR: ISHIKAWA HISAO; SUENAGA HIROSHI
PATENT ASSIGNEE(S): NEW OJI PAPER CO LTD, JP (CO 324545)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 08010284 | A | 19960116 | Heisei | (6) A61F013-15 |

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1994-146715 19940628
ORIGINAL: JP06146715 Heisei
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 96, No. 1

AN 1996-010284 JAPIO
AB PURPOSE: To provide a process for producing cellulosic fibers which have a low water holding degree, have excellent liquid absorbability and releasability and are adequately usable for absorbent members, such as paper **diapers**, **sanitary napkins** and pads for **incontinent** persons, etc., and an absorbent structure formed by using these cellulose fibers.
CONSTITUTION: Hydrophobing chemicals are added to the cellulosic fibers having in the state of moistening the fibers with water and shearing force is applied to the fibers by subjecting the fibers to a mechanical agitation treatment; thereafter, the fibers are subjected to drying and fluxing in a non-restraining state at 105 to 170.degree.C. These hydrophobing chemicals are selected from **anionic**, **cationic** or nonionic surfactants, wax water repellents and sizing agents. The absorbent structure is composed by using the cellulosic fibers which have the water holding degree of 2 to 28% and are produced by this process for production.
AN 1996-010284 JAPIO
IC ICM (6) A61F013-15
ICS (6) A61F013-46; (6) A61F005-44; (6) C09K003-18
ICA (6) D04H001-40; (6) D21D001-20

L81 ANSWER 6 OF 6 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 1986-254922 JAPIO
TITLE: CLEANING MATERIAL
INVENTOR: URANO NAOYUKI; NODA AKINORI; YAMAGISHI NOBUYUKI

PATENT ASSIGNEE(S): ASAHI GLASS CO LTD, JP (CO 000004)
PATENT INFORMATION:

| PATENT NO | KIND | DATE | ERA | MAIN IPC |
|---|---|---|---|---|
| JP 61254922 | A | 19861112 | Showa | (4) G02B027-00 |

JP
APPLICATION INFORMATION
ST19N FORMAT: JP1985-95633 19850507
ORIGINAL: JP60095633 Showa
SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: P, Sect. No. 563, Vol. 11, No. 1, P. 39 (19870404)
AN 1986-254922 JAPIO
AB PURPOSE: To obtain the cleaning material for a lens use having an excellent cleaning property and capable of giving an anti-cloud and an antistatic properties to the lens, and also capable of maintaining said properties for a long period by impregnating a fluorinated surface active agent to the substrates of a thin paper and a cotton **cloth** as the **cleaning** material for the lens.
CONSTITUTION: An **anionic**, a **cationic** and a nonionic fluorinated surface active agents having 4-20C polyfluoroalkyl group are impregnated to the substrate of the thin paper, the cotton cloth and the **non-woven** fabric solely or in a combinations thereof to obtain the titled cleaning material which is used to clean the lens by wiping the lens with said material. By using the fluorinated surface active agent, the lens is not only cleaned but also is given the anti-cloud and the anti-static properties. The excellent titled cleaning material capable of maintaining the prescribed good properties for the long period, is obtd.
AN 1986-254922 JAPIO
IC ICM (4) G02B027-00
ICS (4) C11D017-04

=> file wpids
FILE 'WPIDS' ENTERED AT 11:12:54 ON 18 APR 2002
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FILE LAST UPDATED: 16 APR 2002 <20020416/UP>
MOST RECENT DERWENT UPDATE 200224 <200224/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

=> d l80 1-16 max

L80 ANSWER 1 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2002-124055 [17] WPIDS
DNC C2002-038146
TI Hydrophilic polyester fiber, comprising aqueous mixed dispersion of

polyester-polyether block copolymer on the surface and made hydrophilic by heating at specified temperature.

DC A23 A83 A88 F04

IN HAMAGUCHI, T; MARUYAMA, H; NISHINAKA, H; TANAKA, S

PA (TOYM) TOYO BOSEKI KK; (TOYM) TOYOBO KK; (HAMA-I) HAMAGUCHI T; (MARU-I) MARUYAMA H; (NISH-I) NISHINAKA H; (TANA-I) TANAKA S

CYC 28

PI EP 1149944 A1 20011031 (200217)* EN 16p D06M015-53
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
JP 2001303449 A 20011031 (200217) 6p D06M015-53
JP 2001303450 A 20011031 (200217) 8p D06M015-53
US 2002031968 A1 20020314 (200222) B32B027-12

ADT EP 1149944 A1 EP 2001-110066 20010427; JP 2001303449 A JP 2000-130887 20000428; JP 2001303450 A JP 2000-130888 20000428; US 2002031968 A1 US 2001-844660 20010427

PRAI JP 2000-130888 20000428; JP 2000-130887 20000428

IC ICM B32B027-12; D06M015-53
ICS B32B027-04; D01F006-62; D04H001-00; D04H001-42; D04H003-00; D04H013-00; D06M013-00; D06M015-507

ICI D06M101:32

AB EP 1149944 A UPAB: 20020313
NOVELTY - A hydrophilic polyester fiber comprises an aqueous mixed dispersion on the surface and made hydrophilic by heating at at least 35 deg. C. The aqueous mixed dispersion has polyester-polyether block copolymer of polyester and polyether components. It is stable at lower than 35 deg. C and precipitates the polyester-polyether block copolymer when its dispersion is broken by heating to at least 35 deg. C.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) a method for producing a hydrophilic polyester fiber; and

(B) a hydrophilic **non-woven** fabric

comprising a fiber web containing at least 20 wt.% hydrophilic polyester fiber and entangled by needle punching, stitch bonding, thermal bonding, or water jet entangling method.

USE - The fiber is used as raw material for woven and **non-woven** fabrics. The fabric is used for filter, e.g. coffee filter or civil engineering, e.g. drain materials. It is useful for sanitary materials, e.g. paper **diapers**, top sheets, and/or second sheets of **sanitary napkins**, wet **wipes** for wiping the buttocks, wet **wipers** for articles, wet tissues, kitchen paper, counter cloths, tray mats, drapes or clothes for surgery, domestic products or food wrapping materials.

ADVANTAGE - The inventive hydrophilic polyester fiber and **nonwoven** fabric have excellent hydrophilicity and durability without deteriorating the intrinsic and excellent characteristics of polyesters. They are produced from economical methods.

Dwg.0/1

TECH EP 1149944 A1 UPTX: 20020313
TECHNOLOGY FOCUS - POLYMERS - Preferred Copolymers: The

polyester-polyether block copolymer comprises an aromatic dicarboxylic acid, an aliphatic dicarboxylic acid, or their ester derivatives as an acid component; and polyoxyalkylene glycol with at least 500 average molecular weight or its derivative as the polyether component. It is produced by copolymerizing 5-150 wt.% of the polyether and polyester components. The polyester-polyether block copolymer of 0.05-2 parts by weight is supplied to 100 pbw of the fiber.
Preferred Dispersion: The aqueous mixed dispersion has **anionic** and **cationic** surfactants, and nonionic and/or **amphoteric** surfactant and its dispersion state are broken by ion complex production by heating.
Preferred Materials: The polyester fiber is made of polyester containing ethylene terephthalate unit. It is a core-sheathed type or side by side conjugate of two kinds of polyesters having at least 20degreesC difference in melting or softening points.

TECHNOLOGY FOCUS - TEXTILES AND PAPER - Preferred Parameter: The **non-woven** fabric has basis weight of 20-2000 (preferably 30-300) g/m2 and water adsorption 3 minutes after measurement by Larose method of at least 30 wt.% based on the fabric weight.
Preferred Fabric: The fabric has a filament having the fiber diameter of 0.5-40 mum containing 80 wt.% of the polyester component and bearing the block copolymer on the surface.

FS CPI
FA AB
MC CPI: A05-E01B2; A05-E09; A12-G; A12-S05G; A12-S05S; F02-C01; F03-C05
PLE UPA 20020313

L80 ANSWER 2 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2002-115909 [16] WPIDS
DNN N2002-086482 DNC C2002-035668
TI Absorbent articles such as **sanitary napkins** and baby **diapers** for absorbing body fluids, comprises chitosan material, and has liquid permeable top sheet, breathable back sheet and intermediate core.
DC A11 A96 D22 F07 P34
IN CARLUCCI, G; DI CINTIO, A; GAGLIARDINI, A; PESCE, A
PA (PROC) PROCTER & GAMBLE CO
CYC 96
PI EP 1149597 A1 20011031 (200216)* EN 27p A61L015-28
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
WO 2001080911 A1 20011101 (200216) EN A61L015-28
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ

VN YU ZA ZW
AU 2001059124 A 20011107 (200219) A61L015-28
ADT EP 1149597 A1 EP 2000-108066 20000425; WO 2001080911 A1 WO 2001-US13062 20010423; AU 2001059124 A AU 2001-59124 20010423
FDT AU 2001059124 A Based on WO 200180911
PRAI EP 2000-108066 20000425
IC ICM A61L015-28
ICS A61L015-42
AB EP 1149597 A UPAB: 20020308
NOVELTY - An absorbent article for absorbing body fluid, has an intermediate core formed between a liquid permeable top sheet (2) and a breathable back sheet (5,6), and comprises a chitosan material (4).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for use of chitosan material in absorbent articles for maintaining breathability of the article during use.

USE - Such as **sanitary napkins**, nursing pads, baby **diapers**, pantiliners (all claimed), **incontinent** pads and interlabial pads for absorbing body fluids including instance perspiration, urine, menstrual fluids, faeces, vaginal secretions and lactational fluid.

ADVANTAGE - The absorbent article having breathable back sheet allows circulation of water vapor and air through it, and offers contradictory benefit of high performing breathability and high protection level while delivering effective malodor control benefit. The chitosan increases anti-microbial property, absorbing ability and gelifying ability, and maintains effective level of breathability, especially air transmission ability during use while reducing leakage through absorbent article and delivering enhanced odor control. The gelling material enhances **cationic** properties of chitosan material, thereby further enhancing gelification rate and breathability.

DESCRIPTION OF DRAWING(S) - The figure shows sectional view of pantiliner.

Liquid permeable top sheet 2
Tissue layers 3a,3b
Chitosan material 4
Breathable back sheet 5,6

Dwg.1/4
TECH EP 1149597 A1 UPTX: 20020308
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Arrangement: The article comprises an absorbent gelling material, preferably a synthetic **anionic** gelling material. The gelling material is located so that the body fluid first contacts it before contacting the chitosan material. The core comprises a tissue laminate comprising two opposite tissue layers (3a,3b), one facing the top sheet and other the back sheet. The tissue laminate comprises chitosan material and gelling material, disposed between the tissue layers. The chitosan material is directed towards the back sheet, is preferably applied onto the tissue layer facing the back sheet. The absorbent article further comprises additional odor control agent(s). The back sheet has two layers, one comprising an

aperture layer and the other a fibrous layer. The back sheet has resilient layer(s) and three-dimensional web comprising a liquid impervious polymeric film and a breathable layer (II). The polymeric film has apertures forming capillaries which are not perpendicular to the plane of the film but disposed at an angle of 90degrees or less, relative to the plane of the film. The breathable layer (II) is fibrous **non-woven** web made of synthetic fibers having basic weight of less than 40 g/m2.
Preferred Properties: The degree of deacetylation of chitosan is more than 75%, preferably 95-100%. The absorbent article comprises 0.5-500 g/m2, preferably 4-50 g/m2 of chitosan, 5-250 g/m2, preferably 10-100 g/m2 of gelling material and 0-600 g/m2, preferably 20-200 g/m2 of odor control agent. The back sheet comprises an aperture polymeric film with apertures having mean diameter of 100-500 mum or a two-dimensional planar aperture film with apertures having mean diameter of 150-5 mum. The breathability of the article, measured by air permeability rate in l/m2/second through article thickness when subjected to 2 ml artificial menstrual fluid, is at least 35%, preferably at least 55% of the air permeability of dry article.
Preferred Compounds: The chitosan material is chosen from group comprising chitosans, chitosan salts, cross-linked chitosan and/or modified chitosans. The chitosan material is preferably chitosan salt chosen from 46 claimed compounds such as citric acid, adipic acid, lysine, hydroxy proline and glutamic acid, more preferably chitosonium pyrrolidone carboxylate. The odor control agent is chosen from silica, zeolite, diatomaceous earth, carbon, starch, cyclodextrine, clay, kieselguhr, ion exchange resin, acid, masking agent, chelating agent and/or pH buffering agent, preferably silicate and/or zeolite.

FS CPI GMPI
FA AB; GI
MC CPI: A03-A01; A12-V03A; D09-C02; D09-C03; D09-C04; D09-C06; F04-C01; F04-E04
PLE UPA 20020308
[1.1] 018; R03882 D01 D11 D10 D23 D22 D31 D42 D50 D76 D86 F08 F07 F24 F28 F26 F34 H0293 P0599 G3623 M2313
[1.2] 018; ND01; Q9999 Q8004 Q7987; Q9999 Q7818-R; N9999 N7192 N7023; K9416; K9905; K9676-R; B9999 B4875 B4853 B4740; B9999 B3383-R B3372; Q9999 Q9370; B9999 B4488 B4466

L80 ANSWER 3 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2002-010501 [01] WPIDS
DNC C2002-002496
TI Composition and dispersion for making **nonwoven** fabric comprises at least one fibre and a binding amount of hydroxy-functionalized polyether or polyester.
DC A23 A25 A87 F04
IN BECKERDITE, J M; DUKES, C D; SHAFFER, D G; XIA, G
PA (DOWC) DOW CHEM CO; (BECK-I) BECKERDITE J M; (DUKE-I) DUKES C D; (SHAF-I) SHAFFER D G; (XIAG-I) XIA G
CYC 91

PI WO 2001064990 A2 20010907 (200201)* EN 17p D04H001-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ YU ZA ZW
AU 2001038420 A 20010912 (200204) D04H001-00
US 2002009937 A1 20020124 (200210) B32B027-12

ADT WO 2001064990 A2 WO 2001-US5088 20010215; AU 2001038420 A AU 2001-38420 20010215; US 2002009937 A1 Provisional US 2000-185281P 20000228, US 2001-780075 20010209

FDT AU 2001038420 A Based on WO 200164990

PRAI US 2000-185281P 20000228; US 2001-780075 20010209

IC ICM B32B027-12; D04H001-00
ICS B32B005-02; B32B027-04; B32B027-38

AB WO 200164990 A UPAB: 20020105
NOVELTY - Composition comprises at least one fibre and a binding amount of a hydroxy-functionalized polyether or polyester.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for
(1) A **nonwoven** fabric comprising the composition; and
(2) A dispersion comprising a hydroxy-functionalized polyether or polyester.
USE - The composition is used in **nonwoven** fabrics (claimed) and so are useful in any application where **nonwoven** materials have utility, e.g. filtration, medical and clean room applications, as garments, barrier products, sterilization wraps, interlinings, cushioning, stretchable absorbent materials, **wipes** and in the preparation of personal-care articles such as flushable **diapers**.
ADVANTAGE - The fabrics prepared using this composition are stronger than those produced without binders but don't exhibit reduced absorption performance or a stiff hand.
Dwg.0/0

TECH WO 200164990 A2UPTX: 20020105
TECHNOLOGY FOCUS - TEXTILES AND PAPER - Preferred Composition: The hydroxy-functionalized polyether or polyester is thermoplastic, **cationic** and non-fibrous.
Preferred Dispersion: The dispersion further comprises nonionic and **anionic** surfactants (total 3.7 wt.%) and has a solids content of 50.7 wt.%, volume average particle size of 1.03 microns. The hydroxy-functionalized polyether or polyester is a poly(hydroxy amino ether), preferably the reaction product of adipic acid and the diglycidyl ether of bisphenol A.

FS CPI

FA AB

MC CPI: A05-E01B; A05-H01B; A12-G; A12-S05G; F02-C01; F02-C02B1

PLE UPA 20020109
[1.1] 018; F26-R; P0839-R F41 D01 D63; S9999 S1183 S1161 S1070; H0317; S9999 S1025 S1014
[1.2] 018; F26-R F07-R; P0964-R F34 D01; S9999 S1183 S1161 S1070; H0317; S9999 S1025 S1014

[1.3] 018; Q9999 Q6791; ND01; Q9999 Q9132; Q9999 Q7567; Q9999 Q7987-R; Q9999 Q8026 Q7987; Q9999 Q7056-R; Q9999 Q9370; Q9999 Q8004 Q7987; Q9999 Q8015 Q7987; B9999 B3383-R B3372; N9999 N6020 N6008; K9643 K9621; Q9999 Q6780; B9999 B3883 B3838 B3747; B9999 B4091-R B3838 B3747; B9999 B4182 B4091 B3838 B3747

L80 ANSWER 4 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2001-443603 [48] WPIDS
DNN N2001-328177 DNC C2001-134317
TI Substrate contained in sealable container e.g. wet wipe comprises (non)ionic, **amphoteric** and/or zwitterionic surfactants, with reduced formation of streaks and/or spots.
DC A92 D25 E19 P28
IN BIANCHETTI, G O; EVERS, M F T; RASO, F; SEVERINI, A
PA (PROC) PROCTER & GAMBLE CO
CYC 95
PI EP 1097987 A1 20010509 (200148)* EN 19p C11D017-04
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
WO 2001032826 A1 20010510 (200148) EN C11D017-04
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001013586 A 20010514 (200149) C11D017-04
ADT EP 1097987 A1 EP 2000-870062 20000405; WO 2001032826 A1 WO 2000-US30229 20001102; AU 2001013586 A AU 2001-13586 20001102
FDT AU 2001013586 A Based on WO 200132826
PRAI EP 2000-870009 20000126; EP 1999-870228 19991103
IC ICM C11D017-04
ICS A47K010-32; C11D001-94
AB EP 1097987 A UPAB: 20010829
NOVELTY - Providing a cleaning and/or disinfecting wet wipe exhibiting improved cleaning, shine, suds suppression and reduced level of residue on drying, and also improved disinfecting efficacy and at least maintain, but preferably improve residual disinfecting benefit.

DETAILED DESCRIPTION - Use of a substrate contained in a sealable container incorporating a composition comprising an anionic surfactant, an nonionic surfactant and an **amphoteric** and/or zwitterionic surfactant and being substantially free of pH modifying agents and/or disinfect a surface, where the formation of streaks and/or spots is reduced preferably prevented.

An INDEPENDENT CLAIM is also included for a sealable container in a substrate which incorporates a substrate which incorporates a composition comprising an anionic surfactant, an anionic surfactant and an **amphoteric** and/or zwitterionic surfactant.

USE - Used as wet **wipes** for cleaning and/or

disinfecting human skin, mouth etc. as well as inanimate surfaces such as walls, tiles, table tops, glass, bathroom surfaces, kitchen surfaces, dishes, fabrics, clothes, carpets etc..

ADVANTAGE - Exhibits improved cleaning, shine, suds suppression and reduced level of residue on drying, and also improved disinfecting efficacy and at least maintain, but preferably improve residual disinfecting benefit.

Dwg.0/0

TECH EP 1097987 A1 UPTX: 20010829

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Container: The seal of the container is substantially airtight.

The container is made from plastic selected from polypropylene, polyethylene, polystyrene, acrylonitryl butadiene styrene (ABS), polyester, polyvinyl chloride, polycarbonate and/or elastomer.

R = 6-22C, preferably 8-22C or 6-28C alkyl benzene chain;

A = ethoxy or propoxy or butoxy unit; and

n = 0 - 20.

The container additionally comprises a disinfecting agent selected from bleaching agent, antimicrobial essential oil, antimicrobial active and/or an essential oil, and a solvent.

Preferred Substrate: The substrate is airlaid, **non-woven** and comprises man-made fibers.

Preferred Surfactant: The anionic surfactant is a branched alkyl sulfate surfactant, preferably 2-ethyl-hexyl sulfate.

The anionic surfactant is selected from 6-20C alkyl sulfates, 6-20C alkyl aryl sulfates, 6-20C alkyl alkoxylated sulfates, 6-20C alkyl sulfonates, including paraffin sulfonates, 6-20C alkyl aryl sulfonates, 6-20C alkyl alkoxylated sulfonates, 6-20C alkyl alkoxylated linear or branched diphenyl oxide disulfonates and/or naphthalene sulfonates.

The nonionic surfactant is an alkoxylated nonionic surfactant of formula RO-(A)n-H;

The **amphoteric** surfactant is selected from 6-20C amine oxide or their mixtures.

The zwitterionic surfactant is selected from 6-20C betaine and/or sulfobetaines.

Preferred Composition: The composition has a pH of 1-14, preferably 7-13, more preferably 8-10.

The composition further comprises lactic acid.

The composition is substantially free of pH modifying agents.

KW [1] 143254-0-0-0 CL; 0041-51001 CL; 0041-51002 CL; 0041-51003 CL; 0041-51004 CL; 0041-51005 CL; 0041-51006 CL

FS CPI GMPI

FA AB; DCN

MC CPI: A12-P01B; A12-V04C; A12-W12B; D11-A12; D11-D01; D11-D01B; E10-A01; E10-A03; E10-A09A; E10-A09B2; E10-A22D; E10-E04M4

PLE UPA 20010829

L80 ANSWER 5 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 2001-415764 [44] WPIDS

DNN N2001-308185 DNC C2001-125593

TI Laminated **nonwoven** fabrics useful in sanitary products such as **sanitary napkins** and **diapers**.
DC A11 A96 D22 F04 P73
PA (PIGE-N) PIGEON KK; (TOHS) TOHO RAYON KK
CYC 1
PI JP 2001138424 A 20010522 (200144)* 12p B32B005-26
ADT JP 2001138424 A JP 1999-323255 19991112
PRAI JP 1999-323255 19991112
IC ICM B32B005-26
ICS D04H001-42
AB JP2001138424 A UPAB: 20010809
NOVELTY - Laminated **nonwoven** fabrics are made of at least two **nonwoven** fabrics in such a way that they can be split with water, a water-splitting **nonwoven** fabric which consists of water-splitting fibers containing ionic fibers made from a resin composition containing a **cationic** resin and an **anionic** resin and a short fiber **nonwoven** fabric consisting of short fibers.
USE - The laminated **nonwoven** fabrics invented can be used in sanitary products, such as care products, infant products, **sanitary napkins**, **diapers**, and wet tissues.
ADVANTAGE - The laminated **nonwoven** fabrics invented have high water absorbing capacities and enough tensile strength when wet with a small amount of water but can be split into pieces with a large amount of water and flushed down the toilet.
Dwg.0/10
TECH JP 2001138424 AUPTX: 20010809
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred water-splitting **nonwoven** fabric: The water-splitting **nonwoven** fabric preferably consists of ionic fibers made from a resin composition containing regenerated **cellulose**, a **cationic** resin, and an **anionic** resin and short fibers which cannot be split with water.
FS CPI GMPI
FA AB
MC CPI: A12-S05G; A12-V03A; D09-C03; F02-C01; F03-D; F04-C01; F04-E04
PLE UPA 20011203
[1.1] 018; R24077-R R01852 G3634 G3623 D01 D03 D11 D10 D23 D22 D31 D42 D50 D76 D86 F24 F29 F26 F34 H0293 P0599; S9999 S1070-R; S9999 S1183 S1161 S1070; K9621-R
[1.2] 018; P0000; S9999 S1070-R; S9999 S1183 S1161 S1070; K9632 K9621; K9643 K9621
[1.3] 018; ND01; Q9999 Q7818-R; Q9999 Q8004 Q7987; Q9999 Q7987-R; B9999 B3407 B3383 B3372; B9999 B4171 B4091 B3838 B3747; Q9999 Q7294; Q9999 Q9176 Q9165; B9999 B3145 B3010

L80 ANSWER 6 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2001-112260 [12] WPIDS
DNN N2001-082447 DNC C2001-033316
TI Cleaning **wiper** for cleaning glass, is made of a **nonwoven** fabric which comprises rayon and hydrophobic fibers

made of at least one polymer selected from polyester, polypropylene and acrylics.

DC A14 A17 A23 A84 D25 P28
IN KIJIMA, T; MIYAGI, A; OHARA, S
PA (TAIW) TAIHO IND CO LTD
CYC 34
PI WO 2000078202 A1 20001228 (200112)* JA 29p A47L025-00
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN ID JP KR NZ SG US
AU 2000052461 A 20010109 (200122) A47L025-00
EP 1136031 A1 20010926 (200157) EN A47L025-00
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT WO 2000078202 A1 WO 2000-JP3722 20000608; AU 2000052461 A AU 2000-52461 20000608; EP 1136031 A1 EP 2000-937187 20000608, WO 2000-JP3722 20000608
FDT AU 2000052461 A Based on WO 200078202; EP 1136031 A1 Based on WO 200078202
PRAI JP 1999-172612 19990618
IC ICM A47L025-00
AB WO 200078202 A UPAB: 20010302
NOVELTY - A cleaning **wiper** comprises a **nonwoven** fabric which comprises 30 - 90 wt.% of rayon and 10 - 70 wt.% of hydrophobic fibers made of at least one polymer selected from polyester, polypropylene and acrylics.
USE - The cleaning material is especially suitable for use for wiping glass and for wiping off oil from dried surfaces.
ADVANTAGE - The cleaning **wiper** has excellent workability and excellent performance.
Dwg.0/0
TECH WO 200078202 A1UPTX: 20010302
TECHNOLOGY FOCUS - TEXTILES AND PAPER - Preferred Fabric: The **nonwoven** fabric comprises at least one polymer selected from polyester, polyethylene, polypropylene, acryl and nylon. The **nonwoven** fabric is made of fibers having a thickness of 2 dtex or lower.
Preferred Material: A cleaning material is obtained by impregnating the **nonwoven** fabric with 60 - 95 wt.% of liquid detergent comprising 5 - 30 wt.% of alcohol, 0.01 - 0.5 wt.% of surfactant and 64.7 - 94.99 wt.% of water.
Preferred Alcohol: The alcohol is a 1-5C monovalent alcohol (preferred monovalent 2-3C alcohol). The surfactant is an **anionic**, **cationic**, **amphoteric** or nonionic surfactant,
FS CPI GMPI
FA AB
MC CPI: A03-A05A; A04-D02B; A04-D03B; A04-G03E; A05-E01B3; A12-D04; A12-S05G; D11-A; D11-B16; D11-D07
PLE UPA 20010302
[1.1] 018; R24076 R24077 R01852 G3634 G3623 D01 D03 D11 D10 D23 D22 D31 D42 D50 D76 D86 F24 F29 F26 F34 H0293 P0599; S9999 S1183 S1161 S1070

[1.2] 018; ND01; Q9999 Q7034-R; Q9999 Q9132; B9999 B5254 B5243 B4740; N9999 N7090 N7034 N7023; N9999 N7136 N7034 N7023; B9999 B5436 B5414 B5403 B5276; K9610 K9483; K9676-R
[2.1] 018; P0839-R F41 D01 D63; S9999 S1183 S1161 S1070
[2.2] 018; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83; H0000; S9999 S1183 S1161 S1070; P1150; P1343
[2.3] 018; G0475-R G0260 G0022 D01 D12 D10 D26 D51 D53 F12; H0000; H0011-R; S9999 S1183 S1161 S1070; P0088
[2.4] 018; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82; H0000; S9999 S1183 S1161 S1070; P1150; P1161
[2.5] 018; P0635-R F70 D01; S9999 S1183 S1161 S1070
[2.6] 018; ND01; Q9999 Q7034-R; Q9999 Q9132; B9999 B5254 B5243 B4740; N9999 N7090 N7034 N7023; N9999 N7136 N7034 N7023; B9999 B5436 B5414 B5403 B5276; K9610 K9483; K9676-R
[2.7] 018; B9999 B3509 B3485 B3372

L80 ANSWER 7 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 2000-161142 [14] WPIDS
DNC C2000-050472
TI PIT emulsions containing fatty acid alkyl esters, fatty alcohols, fatty alcohol polyglycol ethers and fatty acid partial glyceride compounds are used as impregnating and softening agents for paper and tissues.
DC A87 A97 E17 F06 F09
IN ANSMANN, A; BAUMOELLER, G; GRIESBACH, U; HOERNER, V; LEONARD, M; ROBBE-TOMINE, L; TESMANN, H; WADLE, A; WATCHER, R
PA (COGN-N) COGNIS DEUT GMBH
CYC 44
PI WO 2000004230 A1 20000127 (200014)* DE 41p D21H017-72
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU BG BR BY CA CN CZ HU ID IS JP KR LT LV MX NO NZ PL RO RU SI SK TR UA US
AU 9949086 A 20000207 (200029) D21H017-72
EP 1097270 A1 20010509 (200128) DE D21H017-72
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 2000004230 A1 WO 1999-EP4780 19990707; AU 9949086 A AU 1999-49086 19990707; EP 1097270 A1 EP 1999-932849 19990707, WO 1999-EP4780 19990707
FDT AU 9949086 A Based on WO 200004230; EP 1097270 A1 Based on WO 200004230
PRAI GB 1998-27616 19981215; GB 1998-15514 19980716
IC ICM D21H017-72
ICS A61K007-00; D06M013-144; D06M013-17; D06M013-224; D21H017-06; D21H017-14; D21H017-24; D21H017-53
ICI D21H017:06, D21H017:14, D21H017:24, D21H017:53
AB WO 200004230 A UPAB: 20000320
NOVELTY - PIT emulsions containing:
(a) 8-22C fatty acid alkyl esters;
(b) 8-22C fatty alcohols;
(c) 8-22C alcohol polyglycol ethers and
(d) 8-22C fatty acid partial glycerides are used as impregnating and softening agents for paper, non-

**woven** fabrics and tissues.

USE - As impregnating and softening agents for paper. Used especially for tissue paper and hygiene paper which comes into contact with the skin, e.g. toilet paper, paper **wipes**, kitchen paper, make-up removers and fresheners.

ADVANTAGE - Tissue paper impregnated with these preparations has a particularly soft feel and excellent skin-care properties (which are retained for long periods of storage), even when made from pulp with a high content of waste paper. These preparations are based only on readily biodegradable materials, in the form of a homogeneous dispersion with a low viscosity (for ease of application) even at high concentration. The paper can also be made flame-resistant and antimicrobial.

Dwg.0/0

TECH WO 200004230 A1UPTX: 20000320

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: Component (a)-(d) comprise, respectively, esters of formula R1COOR2 (I), alcohols of formula R3OH (II), polyglycol ethers of formula R4O-(CH2CHR5O)nH (III) and glycerides of formula HOCH2CH(OH)CH2OCOR6 (IV)

R1CO and R6CO = optionally unsaturated 8-22C acyl;
R2 = 6-22C alkyl and/or alkenyl;
R3, R4 = 8-22C alkyl and/or alkenyl;
R5 = H or methyl;
n = 1-50

Preferred Composition: The emulsion contains 2-70 wt.% (a), 1-40 wt.% (b), 10-40 wt.% (c), 1-40 wt.% (d) and optionally (e) 0-70 wt.% additives etc. (based on active substance content), with an active substance content of 0.5-80 wt.%. Additives (e) comprise skin-care oils, nonionic, **amphoteric** and/or **cationic** emulsifiers and other active substances, preferably (e-1) chitosans and/or (e-2) (deoxy)-ribonucleic acids, preferably in amounts of 0.001-2.5 wt.% (e-1) and optionally 0-2.5 wt. % (e-2), or 0.001-2.5 wt.% (e-2) and optionally 0-2.5 wt.% (e-1).

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: Suitable chitosans (e-1) have average mol. wts. of 0.01-5 million, preferably 0.03-0.1 million or 0.8-1.2 million; these consist of **anionically**-, nonionically- or **cationically** -derivatized chitosans.

KW [1] 85158-1-0-0 CL; 69463-0-0-0 CL; 90468-0-0-0 CL; 148852-0-0-0 CL; 264449-0-0-0 CL; 0012-90801 CL; 0012-90803 CL; 0012-90804 CL; 0012-90802 CL

FS CPI

FA AB; DCN

MC CPI: A10-E08A; A10-E09; A12-B03A; E10-E04G; E10-E04L; E10-E04M; E10-G02H2; E10-H01D; E10-H01E; F05-A06B

PLE UPA 20000323

L80 ANSWER 8 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 1999-470876 [40] WPIDS

DNC C1999-138278
TI Incorporation of antimicrobial agent into **nonwovens** to provide benefits including long lasting antimicrobial efficacy, reduction of odor, and an increase in freshness.
DC A14 A25 A26 A35 A60 A82 A87 D22 E19 F04 F06
IN MAO, J
PA (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (CIBA) CIBA SPECIALTY CHEM CORP
CYC 26
PI EP 937812 A2 19990825 (199940)* EN 17p D06M016-00
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6346125 B1 20020212 (200219) D06M011-02
ADT EP 937812 A2 EP 1999-810117 19990211; US 6346125 B1 US 1999-251808 19990217
PRAI EP 1998-810141 19980220
IC ICM D06M011-02; D06M016-00
ICS D06M013-144; D06M013-152; D06M013-156; D06M013-342; D06M013-352; D06M013-432; D06M013-46; D06M015-00; D06M015-227; D06M015-263; D06M015-333; D06M015-347; D06M015-53; D06M015-643; D06M015-647
AB EP 937812 A UPAB: 19991004
NOVELTY - Incorporation of antimicrobial agent into **nonwovens** to provide benefits, including long lasting antimicrobial efficacy, reduction of odor etc. by treating with formulation comprising antimicrobial agent, solubilizing agent and optionally copolymer made from two or more monomer(s), at least one having affinities to textile and at least another to antimicrobial substance.

DETAILED DESCRIPTION - A process for the incorporation of an antimicrobial agent into a **nonwoven** comprises treating the **nonwoven** with a formulation comprising:

(a) an antimicrobial agent selected from:
(i) halogeno-o-hydroxydiphenyl compound;
(ii) phenol derivative;
(iii) benzyl compound;
(iv) chlorohexidine and derivatives;
(v) 12-14C alkylbetaine and 8-18C fatty acid amidoalkylbetaine;
(vi) an **amphoteric** surfactant;
(vii) trihalocarbanilide;
(viii) quaternary and polyquaternary compound;
(ix) a thiazole compound;
(x) a iodine containing agent; and
(xi) a naphthyl derivative;
(b) a solubilizing agent; and, optionally,
(c) at least one copolymer made from two or more monomers, with at least one monomer having good affinity to the textiles and at least another monomer having good affinity to the involved antimicrobial substances.

INDEPENDENT CLAIMS are also included for a process for:
(1) the preparation of the formulation comprising first optionally mixing the solubilized or dispersed antimicrobial agent

with the copolymer (c) and then adding the desired amount of water to obtain the aqueous formulation; and

(2) a **nonwoven** textile material treated by the above process.

USE - The **nonwovens** are useful in disposable and durable goods such as baby **diapers**, feminine hygiene products, **wipers**, bed linen, water filtration articles, etc.

ADVANTAGE - The **nonwovens** finished by the process have long lasting antimicrobial efficacy and are advantageous with respect to inhibition of microorganisms, reduction of the risk of contamination, reduction of odor, increase in freshness and improvement in hygienic conditions. The **nonwovens** are incorporated with the antimicrobials without involving a high temperature process.

Dwg.0/0

TECH EP 937812 A2 UPTX: 19991004

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Antimicrobial Agent (i):

The compound is of formula (I):

X = O, S or -CH2-;

Y = Cl or Br;

Z = SO2H, NO2 or 1-4C alkyl;

r,o = 0-3 and at least one of r or o is not equal to 0;

p, m, n = 0 or 1

The compound (i) is especially of formula (II) or (III):

Preferred Antimicrobial Agent (ii): The compound is of formula (IV):

R1 = H, OH, 1-4C alkyl, Cl, NO2, Ph or benzyl;

R2 = H, OH, 1-6C alkyl or halogen;

R3 = H, 1-6C alkyl, OH, Cl, NO2, or sulfo group in the form of alkali metal salt or its ammonium salts;

R4 = H or Me;

R5 = H or NO2; and

R6 = H or radical of formula (V):

Preferred Compound (iii): The compound is of formula (VI):

R1, R2, R3, R4, R5 = H or Cl;

R6 = OH or -O-(CO)-C6H5.

Preferred Antimicrobial Compound (vii), (x) and (xi):

Compound (vii) is of formula (VII):

hal = Cl or Br;

n, m = 1 or 2 and n + m = 3.

Compound (x) is iodopropyl butylcarbamate.

Compound (xi) is of formula (VIII):

Preferred Process: The solubilizing agent is selected from a surfactant, a dispersant, an emulsifier or an organic solvent. Copolymer (c) is a silicone-ethylene oxide copolymer, silicone-ethylene oxide-propylene oxide copolymer, vinyl acetate ethylene copolymer and is obtained from a hydrophilic silicone. Alternatively the copolymer is a polyvinyl methyl ether-maleic anhydride. The copolymer is used as an agent for the improvement of the hydrophobic properties of the **nonwovens** involved or as a binder. A preferred formulation comprises 0.1-30 wt.% of

antimicrobial agent (a), 10-50 wt.% of solubilizing or dispersing agent (b) and 0-50 wt.% of copolymer (c). The **nonwoven** material is incorporated by immersing, passing through or spraying.

KW [1] 200330-0-0-0 CL; 109143-0-0-0 CL; 109370-0-0-0 CL; 90721-0-0-0 CL; 90721-0-1-0 CL ST; 129758-1-0-0 CL; 90721-0-2-0 CL ST; 187913-0-0-0 CL; 92952-0-0-0 CL; 50-0-0-0 CL; 0005-72101 CL; 0005-72102 CL; 0005-72103 CL; 0005-72104 CL; 0005-72105 CL; 0005-72106 CL; 0005-72107 CL; 0005-72108 CL

FS CPI

FA AB; GI; DCN

MC CPI: A08-M02; A11-C05C; A12-S05G; A12-S05T; D09-C03; E07-F01; E10-A09B7; E10-A12B2; E10-A12C2; E10-A13A2; E10-A22B; E10-C03; E10-E02D1; E10-E02E1; E10-E02F1; E10-E02U; E10-E04M1; E10-G02F1; F02-C01; F03-C02B

DRN 0095-U; 0714-U; 1614-U

PLE UPA 19991004

L80 ANSWER 9 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 1998-463398 [40] WPIDS

DNN N1998-361695 DNC C1998-140783

TI Liquid for giving open fibre by responding to stimulation - comprises **cationic** resin and **anionic** resin, which are dissolved or dispersed in aqueous medium, used for making **nonwoven** fabric for e.g. disposable nappy.

DC A18 A96 D22 F04 P32

PA (PIGE-N) PIGEON KK

CYC 1

PI JP 10195770 A 19980728 (199840)* 10p D06M015-05

ADT JP 10195770 A JP 1996-345228 19961225

PRAI JP 1996-345228 19961225

IC ICM D06M015-05

ICS A61F013-15; C08L005-08; C08L101-08; D04H001-58; D06M014-14; D06M014-16; D06M015-03; D06M015-263

AB JP 10195770 A UPAB: 19981008

The liq. comprises a **cationic** resin and an **anionic** resin, which are dissolved or dispersed in an aq. medium.

Preferably the **cationic** resin is cationated cellulose, cationated dextran, cationated guar gum. **Anionic** resin is carboxylvinyl polymer, **carboxymethyl-cellulose**, **alginic acid**, chisantane rubber, poly(meth)acrylic acid. The liq. has pH of 2-8.

USE - The liq. is used for making **nonwoven** fabric for disposable nappy, **sanitary goods**, etc.

ADVANTAGE - The **nonwoven** fabric can be easily given open fibre into aq. medium depending upon pH of the medium, e.g. pH = 6-8.

Dwg.0/0

FS CPI GMPI

FA AB

MC CPI: A07-B; A12-M; A12-S; A12-S05G; A12-V03A; D09-C; D09-C02; D09-C03; D09-C04D; F02-C01; F04-C01; F04-E04

PLE UPA 19981028

L80 ANSWER 10 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1998-463397 [40] WPIDS
DNN N1998-361694 DNC C1998-140782
TI **Nonwoven** fabric opening fibres by response to pH for sanitary products - comprising **cationic** and **anionic** resin binder sensitive to alkali.
DC A18 A96 D22 F04 P32
PA (PIGE-N) PIGEON KK
CYC 1
PI JP 10195769 A 19980728 (199840)* 9p D06M015-05
ADT JP 10195769 A JP 1996-345227 19961225
PRAI JP 1996-345227 19961225
IC ICM D06M015-05
ICS A61F013-15; D04H001-58; D06M013-11; D06M015-03; D06M015-263
AB JP 10195769 A UPAB: 19981008
The **nonwoven** fabric (NF) comprises fibres (FF) forming **nonwoven** fabric and a binder responding to alkali (BI). (BI) is composed of **cationic** resin (CR) and **anionic** resin (AR), and bonds each fibre of (FF).
USE - (NF) is used for disposable **diaper**, **sanitary goods**, etc.
ADVANTAGE - (NF) can easily form open fibres in aq. medium depending upon pH of the medium, e.g. pH=6-8.
Dwg.0/0
FS CPI GMPI
FA AB
MC CPI: A12-V03A; D09-A02; D09-C02; D09-C03; D09-C04D; F02-C01; F04-C01; F04-E04
PLE UPA 19981028

L80 ANSWER 11 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1998-440578 [38] WPIDS
DNN N1998-343190 DNC C1998-134263
TI Stimulation-responding, opening **non-woven** fabric used e.g. for sanitary towels - is manufactured by binding portion(s) of a fibre with **cationic** and ionic resins.
DC A96 D22 F04 P32
PA (PIGE-N) PIGEON KK
CYC 1
PI JP 10183471 A 19980714 (199838)* 10p D06M015-05
ADT JP 10183471 A JP 1996-345226 19961225
PRAI JP 1996-345226 19961225
IC ICM D06M015-05
ICS A61F013-15; D04H001-58; D06M015-03; D06M015-263
AB JP 10183471 A UPAB: 19980923
A stimulation-responding, opening **non-woven** fabric which comprises binding at least one portion of a fibre for forming **nonwov n** fabric having water-dissolving and

dispersing properties with a **cationic** resin and an **anionic** resin.

Also claimed are: (1) a stimulation-responding, opening **non-woven** fabric in which the **cationic** resin is at least one member selecting from the gp. consisting of **cationised cellulose**, **cationised** dextran and **cationised** guar gum and the **anionic** resin is at least one member selected from carboxyvinyl polymer, **carboxymethylcellulose**, **alginic acid**, **xanthan** gum and poly(meth)acrylic acid; (2) a process of manufacturing a stimulation-responding, opening **non-woven** fabric which comprises binding a great number of fibres with a water-soluble binder or coating a water-soluble **nonwoven** fabric formed in the optional form without using a binder with a coating solution contg. a **cationic** resin and **anionic** resin and drying it; (3) a process of finishing a stimulation-responding, opening **non-woven** fabric which comprises immersing the fabric bound at least one portion of a fibre for forming **nonwoven** fabric having water-dissolving and dispersing properties with a **cationic** resin and an **anionic** resin, in an aqueous medium having pH more than 8 and opening it.

USE - The **nonwoven** fabric can be used for manufacturing water-dispersible **sanitary goods**.

ADVANTAGE - Since the stimulation-responding, opening **non-woven** fabric can opened by responding with alkali atmosphere to a water-dispersible fibre.

Dwg.0/0

FS CPI GMPI
FA AB
MC CPI: A11-B05A; A11-C01C; A11-C05A; A12-G04; A12-S05G; A12-S05U; D09-C01; D09-C04D; F02-C01; F02-C02B1; F03-E01
PLE UPA 19981203

L80 ANSWER 12 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1993-086516 [11] WPIDS
CR 1993-118742 [11]
DNN N1993-066168 DNC C1993-038143
TI General purpose **cleaning cloth** - comprises bonded fabric contg. mixt. of LLDPE and homo-polypropylene microfibres, with **cationic** surfactant as disinfectant.
DC A17 A84 A94 D22 F04 F07 P28
IN KREMER, U; WIRZ, P
PA (SILV-N) SILVER PLASTICS GMBH & CO KG
CYC 2
PI DE 4130006 A1 19930311 (199311)* 5p D04H001-42
FR 2680963 A1 19930312 (199319) 18p A47L013-17
ADT DE 4130006 A1 DE 1991-4130006 19910910; FR 2680963 A1 FR 1992-4055 19920403
PRAI DE 1991-4130006 19910910; DE 1992-4201055 19920117
IC ICM D04H001-42

ICS A47L013-17; B01J020-28; D04H001-54; D06M013-46; D06M015-09

AB DE 4130006 A UPAB: 19931115

A domestic or industrial **cleaning cloth** for removing all types of liqs. and solid particles is claimed (I). (I) has a pattern of compacted areas, and consists of **nonwoven** fabric made of melt-blown fibre consisting of LLDPE and up to 45 wt.% homo-PP, contg. at least 1.0 wt.% **cationic** detergent (II) as disinfectant.

More specifically the LLDPE has density below 0.95 g/cm3 and MFI 190/2.16=5-100 (pref. 10-40) g/10 mins., and the PP has MFI 230/2.16=at least 10 g/10 mins. (II) is a quat. ammonium cpd., pref. a quat. ammonium salt with a long-chain alkyl gp., which is applied to the surface of the fibre or fabric in amts. of 1.0-5 wt.%, and the LLDPE fibres pref. also contain up to 7 wt.% of another surfactant, incorporated during fibre prodn. The fabric also contains up to 5 wt.% Na **carboxymethyl-cellulose** (Na-CMC), and the fabric or fibres contain colouring agents. The PP can be partly replaced by thermoplastic fibres with higher temp. resistance than PP, e.g. polyester, polyamide, PPS. Pref., the fabric has base wt. 50-200 g/m2 and consists of 55-65 wt.% LLDPE fibre with MFI 190/2.16=10-30 g/10 mins. and 45-5 wt.% PP with MFI 230/2.16=200-1000 g/10 mins., contg. 1.5-4 wt.% (II).

USE/ADVANTAGE - General purpose **cleaning cloth** for domestic and industrial use, which is soft enough to reach into holes and corners, removes dirt without smearing, and has a good wetting and disinfectant action.

Dwg.0/1

ABEQ FR 2680963 A UPAB: 19931113

Cloth is made from a fleece strip prepd. from melt-blown micro-fibres of thermoplastic synthetic, esp. polyolefin, and opt. a surfactant, with more than 50 wt.% of the micro-fibres of linear low density polyethylene (LLDPE). The fleece is strengthened in places.

Pref., the strip contains 0.3-5 wt.% of **cationic** surfactant as disinfectant, or of **anionic** and/or nonionic and/or **amphoteric**. Pref. **cationic** surfactants are ammonium cpds., e.g., quat.-, benzyl- or alkanol ammonium salts, pyridinium-, imidazolinium-, oxazolinium-, thiazolinium, sulphonium- or quinolium-salts and/or salts of amine oxides. The surfactants are applied to the surface of the micro-fibres or the strip, or are included during prodn. of the synthetic. The strip may contain up to 5 wt.% of Na **carboxymethyl cellulose**.

USE/ADVANTAGE - Used in the household and in industry, to remove all types of solid particles and/or liqs. The cloth is inexpensive, removes all types of dirt without smearing, and has antistatic and disinfectant action.

Dwg.0/1

FS CPI GMPI

FA AB

MC CPI: A04-G06; A12-D04; A12-S05G; F01-E02; F02-C01; F04-E

PLC UPA 19931115

KS: 0004 0016 0029 0037 0044 0231 0248 1279 1280 1283 1288 1309 1403 1450 2530 2532 2562 2600 2645 2701 2763 2819 3151 3174 3197 3198

3319

FG: *001* 014 034 04- 041 046 047 437 481 485 487 512 514 54& 575 58& 580 603 641 664 678 720
FG: *002* 014 04- 041 046 050 437 481 485 487 512 514 603 641 664 678 688 720
FG: *003* 014 038 04- 05- 080 141 143 147 148 151 153 155 156 157 160 206 207 331 481 485 487 51& 541 546 603 641 664 678 720
FG: *004* 014 04- 06- 075 09- 230 231 240 252 52& 603 641 664 678 720

L80 ANSWER 13 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1989-159312 [22] WPIDS
CR 1992-400563 [49]
DNN N1989-121487 DNC C1989-070716
TI Antimicrobial latex compsn. - comprises homogeneous mixt. of natural rubber latex or synthetic polymer latex and protein silver.
DC A96 D22 F06 F09 G02 P34
IN KAWAIDE, A; OZAKI, Y; UMEMURA, Y
PA (NIRA) UNITIKA LTD
CYC 5
PI EP 318258 A 19890531 (198922)* EN 8p
R: DE GB
JP 01138246 A 19890531 (198928)
JP 01138247 A 19890531 (198928)
US 4902503 A 19900220 (199014) 6p
EP 318258 B1 19930407 (199314) EN 7p A01N059-16
R: DE GB
DE 3880097 G 19930513 (199320) A01N059-16
JP 05088900 B 19931224 (199403) 4p C08L021-02
JP 06011812 B2 19940216 (199410) 3p C08L007-02
ADT EP 318258 A EP 1988-311063 19881123; JP 01138246 A JP 1987-297106 19871125; JP 01138247 A JP 1987-297108 19871125; US 4902503 A US 1988-275307 19881123; EP 318258 B1 EP 1988-311063 19881123; DE 3880097 G DE 1988-3880097 19881123, EP 1988-311063 19881123; JP 05088900 B JP 1987-297108 19871125; JP 06011812 B2 JP 1987-297106 19871125
FDT DE 3880097 G Based on EP 318258; JP 05088900 B Based on JP 01138247; JP 06011812 B2 Based on JP 01138246
PRAI JP 1987-297106 19871125; JP 1987-297108 19871125
REP 1.Jnl.Ref; A3...8950; No-SR.Pub; US 4592920; WO 8602006
IC ICM A01N059-16; C08L007-02; C08L021-02
ICS A01N025-10; A01N055-02; A61K031-74; A61L002-16; A61L029-00; C08K003-10; C08K005-56
AB EP 318258 A UPAB: 19931116
An antimicrobial latex compsn. comprises a homogeneous mixt. of a natural rubber latex or a synthetic polymer latex and protein silver.

The natural rubber latex or synthetic polymer latex have a solids content of 20-70 wt.%, pref. 30-65 wt.%. The protein silver is present 0.1-10 wt.% pref. 0.5-5 wt.% based on the solids content

of the latex. The latex is an **anionic** rubber latex and has a pH 8-11 or a **cationic** rubber latex with a pH 1.5.

An antimicrobial latex compsn. comprising a homogeneous mixt. of a **cationic** natural rubber latex or a **cationic** synthetic polymer latex and a water-soluble silver cpd. e.g. silver nitrate, silver chlorate, silver fluoride, silver lactate, and silver picrate. The solids content of the polymers are as above, the water soluble silver salt is present 0.1-30 wt.% in terms of silver, based on solids content but pref. 0.5-10 wt. %.

USE - The above compsn. can be used e.g. in the prodn. of latex products requiring a sustained antimicrobial activity upon prolonged use, e.g. medical devices, **sanitary goods**, and devices for producing food or ice pillows. Examples of products include various catheters, urine catheters, stercus bags, drainage/supplying tubes, sponges, rubberised fabrics (bed sheets, **diaper** covers), bath mats, sizing agents for paper, binders for **nonwoven** fabric, paintings and adhesives.

Dwg.0/0

ABEQ EP 318258 B UPAB: 19930923

An antimicrobial latex composition comprising a homogeneous mixture of a natural rubber latex or a synthetic polymer latex and protein silver in an amount, in terms of silver, of at least 0.1% by weight based on the solids content of said latex.

0/0

ABEQ US 4902503 A UPAB: 19930923

Antimicrobial latex compsn. comprises a homogeneous mixt. of natural rubber latex, or a synthetic polymer latex and protein silver.

Solids content of latex is 20-70 wt.%. Protein silver comprises 0.1-10 wt.% (as Ag) w.r.t. latex solids. Compsn. opt. has **anionic** rubber latex of pH 8-11, or has cation rubber latex of pH 1-5.

ADVANTAGE - Can be readily prepd., exhibiting excellent long term stability during storage.

FS CPI GMPI

FA AB

MC CPI: A07-B; A08-M02; D09-A01; D09-C04; F02-C02B1; F03-C02B; F03-E01; F04-E04; F05-A06B; F05-A06C; F05-A06D; G02-A02B; G02-A05C; G03-B02B

DRN 0122-U; 1520-U; 1725-U; 1760-U

PLC UPA 19930924

KS: 0009 0037 0206 0211 0224 0135 0183 0226 0228 1987 2020 2198 2301 2302 2304 2315 2375 2386 2441 2493 2504 2522 2528 2534 2572 2673 2682 2723 2725 2768 3287 2769 2792 2794 2820 2840 0209 1107 0376 3170 1095 0306 3159

FG: *001* 014 02& 03& 032 062 063 07- 075 08- 10- 117 124 15- 20& 231 257 299 300 314 341 359 397 402 408 409 42- 423 431 436 44& 440 442 473 477 48- 481 483 489 502 525 526 532 536 546 56& 57- 609 633 643 645 656 664 665 674 687 688 720 724

FG: *002* 014 02& 03& 032 034 07- 072 074 075 076 08- 10- 117 122 15- 20& 231 257 27& 299 300 314 341 359 397 402 408 409

42- 423 431 436 44& 440 442 473 477 48- 481 483 489 502
525 526 532 536 546 56& 57- 609 633 643 645 656 664 665
674 687 720 724
FG: *003* 014 02& 03& 032 034 055 056 07- 075 08- 10- 117 122 15-
20& 231 257 27& 299 300 314 341 359 397 402 408 409 42-
423 431 436 44& 440 442 473 477 48- 481 483 489 502 525
526 532 536 546 56& 57- 609 633 643 645 656 664 665 674
687 720 724

L80 ANSWER 14 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1987-108644 [15] WPIDS
DNN N1987-081674 DNC C1987-045167
TI Antimicrobially active **nonwoven** web - prepd. by applying binder to unbonded cellulosic web, applying leachable antimicrobial crosslinking catalyst and curing.
DC A94 D22 F04 F09 P28 P34 P42 P73
IN BOUCHETTE, M P
PA (JAME) JAMES RIVER CORP
CYC 14
PI WO 8701989 A 19870409 (198715)* EN 12p
RW: AT BE CH DE FR GB IT LU NL SE
W: DK JP
EP 238652 A 19870930 (198739) EN
R: DE FR GB IT
DK 8702742 A 19870529 (198808)
US 4737405 A 19880412 (198817) 4p
US 4740398 A 19880426 (198819) 4p
US 4772492 A 19880920 (198840) 4p
JP 63502519 W 19880922 (198844)
CA 1265741 A 19900213 (199014)
EP 238652 A4 19900314 (199511)
ADT WO 8701989 A WO 1986-US2045 19860929; EP 238652 A EP 1986-906531 19860929; US 4737405 A US 1986-925258 19861031; US 4740398 A US 1985-781413 19850930; US 4772492 A US 1987-139825 19871230; JP 63502519 W JP 1986-505464 19860929; EP 238652 A4 EP 1986-906531
PRAI US 1985-781413 19850930; US 1986-925258 19861031; US 1987-139825 19871230
REP US 4430381; No-Citns.
IC A47L013-16; A61K009-70; A61L002-16; B05D001-36; B05D003-02; B32B023-00; D04H001-64; D06M013-20; D06M015-26
AB WO 8701989 A UPAB: 19930922
Prodn. of antimicrobially active, **nonwoven** web comprises: (a) forming an unbonded cellulosic fibre web; (b) applying an uncured polymeric binder; (c) applying a leachable antimicrobial catalyst to catalyse crosslinking of the binder during curing; and (d) curing the binder. The web is also claimed.
USE/ADVANTAGE - Useful as an antimicrobial wipe. The web does not contain a toxic and irritating binder catalyst which may pose health and safety hazards during use and does not require addn. of a separate antimicrobial agent.
0/0
ABEQ US 4737405 A UPAB: 19930922

Antimicrobially-active wet **wip r** comprises (a) an antimicrobial **nonwoven** web comprising (i) bonded cellulosic fibres, (ii) a cured polymeric resin uniformly distributed on (i) in amt. to bind them, and (iii) a leachable catalyst uniformly distributed on (i); and (b) a liq. in which the web is maintained in a wet condition until use. Catalyst is antimicrobial, non-toxic and non-irritating, in amt. to catalyse crosslinking of the binder and render the web antimicrobial.

Pref. catalyst comprises citric acid, malic acid or sorbic acid in amt. 0.1-5.0 wt.% w.r.t. web.

ADVANTAGE - Need for separate antimicrobial agent to be added to the web is eliminated.

ABEQ US 4740398 A UPAB: 19930922

Antimicrobially-active **nonwoven** web comprises (a) bonded cellulosic fibres; (b) a cured polymeric binder uniformly distributed on them to bind fibres; and (c) a leachable catalyst uniformly distributed in (a) and (b). Cpd. (c) is antimicrobial, non-toxic and non-irritating and catalysed crosslinking of the binder to render web antimicrobial.

Pref. (b) is a latex binder or is an **anionic**, nonionic and/or **cationic** binder. Cpd. (c) is citric acid, malic acid and/or sorbic acid.

USE - As a wet **wiper** to destroy or inhibit growth of bacteria, yeasts and moulds.

ABEQ US 4772492 A UPAB: 19930922

Antimicrobially-active **non-woven** web is made by (a) forming an unbonded cellulosic fibre web; (b) applying an uncured polymeric binder throughout it; (c) applying a leachable catalyst to crosslink the binder during curing; and (d) using the binder to crosslink and bind the fibres together to form the web.

Catalyst is antimicrobial, non-toxic and non-irritating and pref. comprises citric acid, malic acid, EDTA or sorbic acid. Binder is latex, or is **anionic**, nonionic or **cationic**.

Catalyst is applied to the web simultaneously with the binder.

USE - As wet **wiper** to reduce presence of bacteria and fungi.

FS CPI GMPI

FA AB

MC CPI: A08-C01; A08-M02; A11-C05A; A12-B02B; A12-S05G; A12-W06B; D09-A01; F02-C02B1; F03-C02B; F05-A07

DRN 0195-S; 0195-U; 0419-S; 0419-U; 0903-S; 1656-S

PLC UPA 19930924

KS: 0034 0037 0212 0220 3000 0229 0231 1974 2009 2016 2020 2194 2198 2285 2286 2295 2302 2304 2430 2434 2436 2486 2493 2504 2528 2572 2673 2675 2682 2723 2725 2820 0486 0487 0009 0306 3159 1095 0241 3155 0789 0376 3170

FG: *001* 014 03- 034 04- 074 075 081 11& 157 231 246 252 26- 273 299 300 32& 341 353 359 397 431 436 440 442 473 477 481 483 525 526 532 536 609 62- 664 665 688

FG: *002* 014 03- 032 034 04- 055 056 075 11& 117 122 157 231 246 252 26- 27& 273 299 300 32& 341 353 359 397 431 436 440

442 473 477 481 483 525 526 532 536 609 62- 664 665
FG: *003* 014 03- 034 04- 041 046 047 066 067 075 11& 157 231 246
252 26- 27& 273 299 300 32& 341 353 359 397 431 436 440
442 473 477 481 483 525 526 532 536 609 62- 664 665
FG: *004* 014 03- 034 04- 072 074 075 076 11& 117 122 157 231 246
252 26- 27& 273 299 300 32& 341 353 359 397 431 436 440
442 473 477 481 483 525 526 532 536 609 62- 664 665

L80 ANSWER 15 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1982-26875E [14] WPIDS
TI Disposable **diaper** has absorbent shrinkable fibres - causing sides to contract for greater liquid retention.
DC A96 D22 P21 P32
IN ITO, O; NISHIZAWA, K
PA (KAOS) KAO SOAP CO LTD
CYC 6
PI GB 2084026 A 19820407 (198214)* 5p
FR 2490463 A 19820326 (198217)
DE 3137175 A 19820506 (198219)
US 4447240 A 19840508 (198421)
GB 2084026 B 19850918 (198538)
IT 1139466 B 19860924 (198823)
DE 3137175 C 19900823 (199034)
JP 57056502 A 19820405 (199046)
ADT GB 2084026 A GB 1981-28630 19810922; US 4447240 A US 1981-302271 19810915
PRAI JP 1980-132064 19800922
IC A41B013-02; A61F013-15
AB GB 2084026 A UPAB: 19930915
A **diaper** has an absorbent layer between a liquid-permeable inner and impermeable outer sheet, with water-absorbent fibres which contract in length on contact with water and become elastic are fixed longitudinally to the central part of the **diaper** without overlapping the layer.

The fibres are connected to the layer via cellulose fibres. The layer may contain the cellulose fibres and have the shrinkable fibres contiquous with the layer, or the layer and shrinkable fibres may be contiguous with a length of absorbent paper. The cellulose fibres may alternatively be rayon yarns. The arrangement allows the **diaper** sides to shrink and contract in good time so that a large quantity of fluid can be absorbed and retained.

ABEQ US 4447240 A UPAB: 19930915
Disposable **diaper** has water-absorbing shrinkable fibres located as bundles along the edges of the central region of the **diaper**, so as to be wetted from the usual absorbent pad of the **diaper** via intervening water-absorbent paper connecting the pad edges to the bundles. The latter contract and tighten the napkin crotch region when wetted.

Pref. the shrinkable fibres comprise one or more of carboxymethylated cotton, methylated, ethylated, hydroxyethylated, sulphated, sulphonated, phosphated, cationised, or **amphoterically** ionised cotton, or cellulose fibres grafted

with sodium acrylate, acrylic acid, acrylonitrile opt.partly saponified, or vinyl alcohol fibres esterified with maleic acid.

ABEQ GB 2084026 B UPAB: 19930915
A disposable nappy comprising a liquid-permeable inner sheet, a liquid-impermeable outer sheet and a water-absorbent layer disposed between said sheets wherein water-absorbent shrinkable fibres, which contract in length on contact with water and become elastic are fixed to the central portion of the nappy in the longitudinal direction without overlapping the water-absorbent layer and said water-absorbent layer is connected to said water-absorbent shrinkable fibres through the medium of cellulose fibres, the cellulose fibres being contained in the water absorbent layer to effect a direct connection or in a rayon yarn or **non-woven** fabric to effect an indirect connection respectively between the water-absorbent layer and the water-absorbent fibres.

ABEQ DE 3137175 C UPAB: 19930915
A disposable nappy consists of a moisture-permeable surface layer, a water-tight backing layer and a absorbent layer positioned between the other two layers. The nappy uses fibres that shrink as a result of water and are located in the longitudinal direction on the side edges of the nappy. The shrinking fibres are closely connected to the water absorbing layer via cellulose fibres.
ADVANTAGE - The liq. is supplied quickly and evenly to the shrink fibres, which contract and form an elastic leg fastening that prevents liq. discharge reliably.

FS CPI GMPI
FA AB
MC CPI: A03-A05A; A12-S05K; A12-V03A; D09-C03
PLC UPA 19930924
KS: 0231 1982 2513 2524 2528 2569 3250 2604 2628 3255 3256 3287

FG: *001* 013 04- 252 253 435 481 483 52& 532 533 535 540 541 542 551 56& 560 566 57& 58& 645

L80 ANSWER 16 OF 16 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
AN 1980-83530C [47] WPIDS
TI Water-absorbing sanitary prod. mfr. - by combining hydrophilic resin compsn. with e.g. cloth or synthetic fibre.
DC A96 D22 P21 P32
PA (DAIC) DAINICHISEIKA COLOR & CHEM MFG
CYC 1
PI JP 55130662 A 19801009 (198047)*
JP 61001144 B 19860114 (198606)
PRAI JP 1979-36256 19790329
IC A41B013-02; A61F013-18; C08L007-00; C08L053-00
AB JP 55130662 A UPAB: 19930902
Water absorptive sanitary prod. is obtd. by combining a hydrophilic resin, or a compns. contg. an hydrophilic resin (consisting of a block copolymer and/or graft copolymer having at least one (hard segment-hydrophilic segment-hard segment) bond, in which the hydrophilic segment is an **anionic**, a nonionic and/or a **cationic** hydrophilic gp. e.g. carboxyl, sulphone or a

water-soluble salt of these; a primary, secondary, tertiary amine, or quaternary ammonium gp., or a water-soluble salt of these, or an alcoholic hydroxyl, ethers, or carboamide gp.) with a base material, e.g. a woven- or **nonwoven** cloth a film, a bar, etc., made of cotton, pulp, regenerated fibre, synthetic fibre, or synthetic resin.
The prod. has high absorbability for human excrements, such as urine, sweat, etc. and blood ahd has excellent water retention and high strength. It can be used in mfr. of: **diaper**, physiological napkin, sweat absorber, water blotting material, etc.

FS CPI GMPI
FA AB
MC CPI: A09-A; A12-V03A; D09-C03; D09-C06
PLC UPA 19930924
KS: 0002 0003 0010 0203 0231 1982 1990 2513 2528 2569 2571 2629 2723 2726 2769 2819 2820 2821

FG: *001* 011 032 034 036 037 04- 05- 231 252 253 435 440 443 477 481 483 532 533 535 546 551 567 582 645 664 665 667 720

=> d his l84-

FILE 'HCA' ENTERED AT 11:14:10 ON 18 APR 2002
L84 2642 S (BATHROOM? OR FACIAL?)(2A)TISSUE? OR NAPKIN? OR PAPERTO
L85 665 S L84 AND L40
L86 8 S L85 AND (L16 OR L17 OR L33) AND (L24 OR L25 OR L32)
L87 2 S L85 AND L34
L88 0 S (L86 OR L87) NOT L43